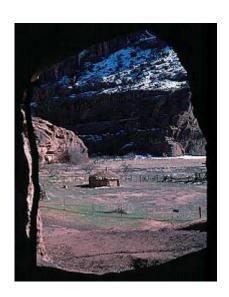
# TELEHEALTH CARE IN INDIAN HEALTH:



Directory
and
New Directions
2005

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<sup>&</sup>lt;sup>1</sup> Activity in this directory is reported as of February 14, 2005.

# **TABLE OF CONTENTS**

1.0	INT	RODUCTION	1
2.0	EXE	ECUTIVE SUMMARY	2
3.0	OVE	ERVIEW OF ACTIVITIES	3
3	.1	National Programs	3
3	.2	Leading Clinical Applications	4
3	.3	Other Clinical Applications	5
3	.4	Emerging Clinical Capability	6
3	.5	Virtual Centers Of Excellence	7
3	.6	Community Outreach	8
3	.7	Distance Learning	9
3	.8	Innovative Health Professional Training	.10
3	.9	Networks And Partnerships	. 11
3	.10	Interagency Collaborations	.12
3	.11	Integrated Systems Of Care	.13
3	.12	Performance Improvement	. 14
3	.13	Grants For Project Development	. 15
3	.14	USAC Rural Health Care Division	. 16
3	.15	Regulations Error! Bookmark not defin	ed.
3	.16	Barriers To Telehealth Use	
3	.17	Evaluation	. 19
3	.18	Telehealth In Context	. 20
4.0	NEV	N DIRECTIONS	.21
5.0	CHA	ARTS	.22
5	.1	Clinical Services By Area	. 22
5	.2	Program Components By Area	. 39
5	.3	Clinical Services By Type And Area	. 55
6.0	GLO	DSSARY OF TERMS	.56
7.0	APF	PENDIX A: TELEHEALTH TO CRS INDICATOR "CROSSWALK"	.57
8.0	APF	PENDIX B: IHS/JVN TELEOPHTHALMOLOGY PROGRAM	.66
9.0	APF	PENDIX C: IHS/JVN QA/PEER REVIEW 2005	.67
10.0	) APF	PENDIX D: FEDERAL GRANTS	.68
		PENDIX E: RESOURCES AND INFORMATION	
		PENDIX F: TRIBAL LANDS HOME TELEPHONE RATES	

## 1.0 Introduction

Telehealth care brings new tools for improving access, quality, and value in Indian health care. In recent years, many Indian Health Service (IHS) and Tribal facilities have implemented a diverse array of telehealth projects and activities. While not all sites have become active in telehealth, most have become aware of its growing presence in the U.S health care delivery system. From Alaska to Florida, clinicians, administrators, and community health staff serving American Indian and Alaska Native communities are increasingly interested in telehealth technology and its potential for improving local and regional care delivery.

Questions have quickly surfaced: who is doing what in telehealth care? Has it worked? What opportunities are there for collaboration? Does telehealth only aid in specialty care? What role might telehealth play in distance learning, health promotion, home health and new models of chronic disease management?

This directory attempts to catalogue some of the clinical telehealth activity underway in Indian health care. Based on information collected informally from a Web-based survey, on-site visits, and a series of telephone calls, the directory categorizes and displays available data regarding telehealth projects and services. While not comprehensive, it is a critical initial step toward understanding the breath of activity already in place in IHS and Tribal facilities. It also represents a foundation for local, regional, and national planning so that:

- more facilities might benefit in the near future from existing telehealth capability;
- heightened awareness of telehealth opportunities might inform evolving models of clinical care;
- collaborations between facilities, IHS Areas, and public/private agencies might capitalize on "economies of scale" for improved health service delivery; and
- evaluations of telehealth across systems of care might guide future resource allocation.

Continued work will be required to assure that future directories include a fully representative sample of clinical, administrative, distance learning, and program development projects that benefit from telehealth technology. Such work will hopefully strengthen our collective understanding of the possibility for system improvements through the tools of new technology.

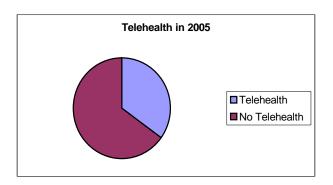
What value has telehealth brought to health care for American Indian and Alaska Native communities? Ongoing efforts to update the directory will include information about value as well as listings of project activities. Charts identifying clinical telehealth involvement cannot be easily extrapolated to conclusions about project performance. A focus on quality - and a path toward its assessment - will be featured in future telehealth program listings and directories.



## 2.0 Executive Summary

Clinical telehealth services are available in all 12 Administrative Areas of the Indian Health Service. An evolving commitment to telehealth care is demonstrated by the following statistics:

- Over 200 Tribal facilities connected to the Alaska Federal Health Care Access Network (AFHCAN) have access to specialist consultation via telehealth:
- 4 81 of 231 (36%) IHS and Tribal service units and facilities surveyed in the "lower 48" continental United States report clinical telehealth activity;2



IHS	Tribes
8	1
4	1
2	4
5	0
0	14
0	5
6	2
5	5
8	4
4	1
1	0
44	37
	8 4 2 5 0 6 5 8

- Additional activity for distance learning and administrative videoconferencing is reported by many other facilities and Area offices;
- 3 national IHS programs tele-ophthalmology, child abuse care, and cardiology offer services via telehealth:
- ♣ Tele-consultation, via both real-time and "store-and-forward" methods, has occurred in over 25 clinical disciplines. Radiology, psychiatry, retinal eye screening, and dermatology are leading clinical applications;
- Since program inception in 2000, more than 13,000 clinical consultations have occurred over the Alaska AFHCAN network. The majority of these consultations have been for Primary Care, ENT, and Dermatology;
- Navajo and Phoenix Area participation represents 60 % of annual telemedicine encounters in the Arizona Telemedicine Program (>214,000 encounters since 1996);
- Over 5000 studies have been interpreted to date by the IHS-Joslin Vision Network;
- Over 30,000 radiology studies from the Navajo Area are interpreted annually by contract tele-radiologists in Tucson, Arizona. Two Navajo Area facilities receive remote interpretations of digital mammography studies;
- In recent years, Tribes/Tribal organizations have received federal grants totaling over \$3 million for projects related to telehealth, network development, and information technology systems integration.

<sup>&</sup>lt;sup>2</sup> Urban and inter-Tribal programs have not been sampled to date.

## 3.0 Overview Of Activities

## 3.1 National Programs

#### The IHS Joslin Vision Network (IHS JVN)

This program enhances annual eye screening opportunities for patients with diabetes via a standardized image acquisition and interpretation methodology developed by the Joslin Vision Center in Boston, MA. Timely readings of retinal images are provided to 28 facilities (see appendix B for a listing) across 10 states by the national IHS JVN reading center in Phoenix, Arizona. Approximately 10-15 new sites are deployed each year. To date, over 5000 examinations have been performed, with 1800 new examinations performed in FY 2004.

Contact: Mark Horton MD; 602-263-1200, ext. 1217; Mark.Horton@ihs.com

## The Native American Cardiology Program (NACP)

NACP is an active partner in the use of telemedicine, supporting real-time tele-cardiology consultation and store-and-forward review of patient-related cardiology studies. Testing that has previously necessitated travel to cardiologist offices off the reservation is now available for many health care facilities in the Navajo and Phoenix Areas.

Contact: James Galloway MD; 928-214-3920; jgalloway@umcaz.edu

## The IHS/OVC Child Abuse Program

This program originated under an interagency agreement with the U.S. Justice Department Office for the Victims of Crime (OVC). The Fort Duchesne Indian Health Center manages the program, offering training on child sexual abuse and secure telemedicine-based support for individual case identification and management. Participating sites have 24/7 access to outside experts via encrypted store-and-forward software.

Contact: CDR P. Jane Powers APRN, BC, MS, FAANP; 435-725-6839; Jane.Powers@mail.ihs.gov Web site: http://www.ovccap.ihs.gov

## 3.2 Leading Clinical Applications

Tele-consultation in radiology, psychiatry, and dermatology represent leading clinical telehealth applications.

## Tele-radiology

- Services for round-the-clock interpretations of plain x-rays, ultrasounds, and CT scans are available in most IHS Areas via contracts with various radiology reading groups.
- Deployment of computed radiography equipment to all sites in Alaska is over 40% complete. Full tele-radiology capability across the state is planned by end of FY 2006.
- Digital tele-mammography programs support women's health delivery on the Navajo Nation. These programs receive interpretation services from board-certified radiologists specializing in women's health.
- A mobile women's health/tele-mammography program will begin this spring within the Aberdeen Area. This program will provide outreach mammography services across the Dakotas and will feature secure, broadband satellite connectivity for real-time mammography study transfer to the project's radiology reading center.

## Tele-psychiatry

 Tele-psychiatry programs in the Aberdeen, Alaska, California, Navajo, and Phoenix Areas offer services to adults, adolescents, and children. A tele-psychiatry project at the Tuba City Regional Health Care Corporation connects adolescents in two school-based clinics with university psychiatrists.

## **Tele-dermatology**

- Patients in many locations in Alaska, Arizona, and other states now receive rapid dermatologist tele-consultation for skin conditions. In contrast to a prior 4-6 week appointment waiting period and a 4-6 hour drive for a visit to a university dermatologist, results of dermatology tele-consultations for some Navajo Area IHS/Tribal facilities are now routinely available within 1-2 days.
- Interagency capacity sharing for dermatology services between the Alaska Area and other federal partners of the Alaska Federal Health Care Access network has demonstrated the potential for collaborative specialist staffing for telemedicine.

## 3.3 Other Clinical Applications

Consultation via telemedicine has occurred for over 25 additional types of clinical specialties. Noteworthy examples include:

## **Primary Care**

 Family physicians in Alaska provide frequent consultation to community health aides via the Alaska Federal Health Care Access Network (AFHCAN).

#### **ENT**

 ENT tele-consultation is a major clinical activity offered over the AFHCAN network, tallying 1200 telemedicine cases each year for the ENT department at the Alaska Native Medical Center.

## Perinatology

 Remote assistance is available for obstetric ultrasound review/interpretation for facilities in the Aberdeen and Navajo Areas.

#### **Specialty Services for Children**

 Enhanced access to pediatric specialists has begun with the Arizona Children's Rehabilitative Services (CRS) program. Shriner's Hospital for Children also provides outreach via telemedicine to different facilities and Areas for pediatric orthopedic care (e.g. Bemidji and Navajo Areas).

#### **Specialist Case Management**

 Follow-up care with specialists via videoconferencing continues for many facilities. In addition to already mentioned specialties such as psychiatry and cardiology, this type of service includes ongoing patient management for oncology, burn care, neurology, and nephrology.

#### Pre-operative evaluation

 General surgery tele-consultation at the Tuba City Regional Health Care Corporation provides pre-operative evaluations to regional Indian health care facilities for elective endoscopy procedures.

## 3.4 Emerging Clinical Capability

Telehealth project development offers great promise for new models of care delivery. Examples include:

#### Tele-home health

 Tele-home health holds great promise for new models of case management and care delivery. For example, a tele-wellness network operated by the Leech Lake Reservation Council in the Bemidji Area includes plans for a home health service component. Telehome health can support care for elderly patients, patients with diabetes, patients with congestive heart failure, and patients with asthma. A model tele-home health project for congestive heart failure care is under development via the IHS Southwest Telehealth Consortium.

#### **Tele-pharmacy**

• Tele-pharmacy is supported by the Alaska Native Medical Center and is almost underway for the Mills Lac Band of Ojibwe in the Bemidji Area. Patients at the Ak Chin Health Clinic receive counseling via videoconferencing by pharmacists at Gila River Health Care Corporation's Hu Hu Kam Memorial Hospital. The Aberdeen Area plans a tele-pharmacy project for clinics and health stations served by the Pine Ridge Medical Center.

## **elCU** (electronic Intensive Care Unit)

eICU is a new method for remote support of busy intensive care units. Evaluations in the
private sector have demonstrated reduced patient mortality and morbidity, and decreased
length of ICU stays. A model eICU project is being planned in Arizona for support of
regional ICUs in the Navajo and Phoenix Areas. This project, a collaboration with Banner
Health/Good Samaritan Hospital, projects involvement of IHS/Tribal facilities in a
developing Banner Health eICU by CY 2006.

#### eED (electronic Emergency Department)

A model eED project is under early consideration. This project would enable timely access to emergency decision support in many Indian health locations. Remote expert guidance with decision-making for patient referrals/emergency transports may result in significant cost-savings. This project may be special interest to facilities staffed by clinicians who are not board-certified in emergency medicine.

## "Robotic" Surgery

 New developments in surgical "virtual simulator" training offer promise for ongoing training and credentialing competency assessments of IHS/Tribal medical staff. Robotic surgery is also actively being used by many university/referral hospitals in the United States. The tools of robotic surgery now assist surgical specialists, such as neurosurgeons and cardiovascular surgeons, in complex procedures performed at referral facilities.

## 3.5 Virtual Centers Of Excellence

Innovative project development is under review for ViRtual Centers of Excellence within Indian health care. Noteworthy examples include:

#### **National Radiology Reading Center**

 The Phoenix Indian Medical Center and the Phoenix Area are actively developing radiology reading center capability. This project will emphasize integrated interpretation, information system, and transcription service capability. Cost-effective services may be offered to IHS/Tribal facilities outside the Phoenix Area by the end of CY 2005.

#### **ENT Tele-Consultation Center**

 The Alaska Native Medical Center (ANMC) is reviewing a virtual model of "expert triage" for ENT care. This model will build upon the substantial tele-consultation work already offered by ANMC's ENT department to member facilities of the Alaska Federal Health Care Access Network. A proof of concept pilot is under development with Yakama Indian Health Center in the Portland Area.

## **Tele-Pharmacy Specialty Center**

 Based on the experience of a proposed tele-pharmacy project at the Pine Ridge Medical Center, the Aberdeen Area IHS is interested in serving as a Center of Excellence for telepharmacy care. The service range may include direct pharmacist oversight of prescription fillings as well as remote assistance with requests for medication outside the IHS national formulary.

#### **Cardiology Consultation Center**

• The Native American Cardiology Program is reviewing opportunities for a Cardiology Consultation Center. This center would offer timely EKG and echocardiogram interpretations, as well as support developing home-based cardiology care activities (e.g. tele-home health for patients with congestive heart failure).

Additional tele-consultation center development is possible for dermatology and other clinical fields. Some Virtual Center development may occur in collaboration with non-IHS partners.

## 3.6 Community Outreach

Telehealth tools have extended care coordination to local communities and patient homes. Exciting projects using new technology include:

## "Chapter House" Telemedicine

 A unique collaboration between the Navajo Nation Community Health Representative Program, the Tuba City Regional Health Care Corporation, the Native American Cardiology Program, the Navajo Area IHS, and the Arizona Telemedicine Program provides creative service delivery to local community "chapter houses" on the western

Navaio Nation. Activities include medication refills for patients with stable medical conditions, nutrition and fitness classes, and community participation in the Arizona Telemedicine Program's Virtual Center of Diabetes Care. Portable "telehealth briefcases" are under development - so that Navajo Nation Community Health Representatives may bring wireless telehealth care into homes surrounding these chapter houses.



#### Patient Access to Health Information

- The Comprehensive Diabetes Management Program (CDMP) will enable case management services for patients with diabetes. CDMP emphasizes: a web-based care management "dashboard" for clinicians; a confidential web-based portal for patients to access their own health information; and an on-line behavioral health assessment capability. CDMP is a collaboration of the IHS, VHA, DoD, and the Joslin Diabetes Center.
- "Sacred Breath" an initiative of the National Congress of American Indian's President's Task Force on Health Information Technology and the Imaging Science and Information Systems Center at Georgetown University – focuses on "breathing new life into the belief that individuals (with diabetes) can play a key role in understanding and managing their disease." Sacred Breath is funded by an appropriation of the US Congress.



## 3.7 Distance Learning

Continuing education is regularly available through many projects and collaborations. Formal credit toward annual continuing education requirements for clinicians and nursing staff is offered. Examples include:

## The Center for Native Telehealth and TeleEducation (CNATT)

Based at the University of Colorado Health Sciences Center, CNATT provides CME-accredited distance education opportunities for local community health professionals. It also offers programmatic and technical training for community health advocates and professionals to develop and disseminate prevention and intervention projects that focus on high-priority, local health concerns. Project network partners include: the Oglala Lakota College (Pine Ridge), Si Tanka Community College (Eagle Butte), Sinte Gleska University (Rosebud), and the Seattle Indian Health Board, Seattle, Washington.

#### The Mountain Plains Health Consortium

 MPHC provides continuing education and other health-related services via the Health Education Development System (HEDS) to 60 dues-paying members in South Dakota, Wyoming, Montana, Nebraska, and Minnesota. The Aberdeen Area Office holds an interagency agreement with the Fort Meade Cooperative Health Education Program for self-paced Web education and training workshops. http://www.heds.org

#### **Navajo Area Clinical Grand Rounds**

 The Navajo Area IHS plans a monthly Virtual Grand Rounds for all clinicians serving the Navajo Nation. Sessions will feature presenters from Service Units and facilities serving the Navajo Nation.

#### **Phoenix Area Tumor Board**

• The Phoenix Indian Medical Center may offer, via secure videoconferencing, its monthly interdisciplinary tumor board review to interested clinicians within the Phoenix Area.

## The Arizona Telemedicine Program (ATP)

 Daily educational content is available in a variety of topical areas and specialties for ATP participants – via real-time videoconferencing and store-and-forward video streaming technology. Presentations for the ATP network have also been originated from sites in the Navajo and Phoenix Areas.

#### The IHS-CMS Satellite network

Administrative and financial education on a variety of topics is offered via this network.
 "eUniversity"-style training for telehealth care -- and other emerging education needs -- may be possible over this network.

## 3.8 Innovative Health Professional Training

Innovative approaches to training American Indian and Alaska Native health care professionals are under development.

## **Certified Nursing Assistant Training**

• The Cheyenne River Sioux Tribe Telephone Authority, the University of South Dakota, and community partners are developing a technology-based Certified Nursing Assistant Training Program offered through the Cheyenne River Community Technology Center in Eagle Butte. The healthcare education team members are the University of South Dakota, the South Dakota Health Technology Innovations, and the Sioux Valley Hospitals and Health Systems.

## "Pathways into Health"

• Project development is underway with multiple universities to encourage American Indian/Alaska Native participation in the health care professions. This project emphasizes the incorporation of videoconferencing and other distance learning/on-line teaching tools into new interdisciplinary models of health professional training.

## **Medical Technician Training**

• The Arizona Telemedicine Program, in collaboration with the University of North Dakota and the Pathways into Health project, is planning to offer medical technician degree training via videoconferencing. This project will enable local health care facilities to sponsor students for laboratory "med tech" careers - while remaining, for at least part of their training, in their local community. It will promote the development of strong relationships between local health care facilities and the regional community college/university educational system while addressing critical shortages in allied health staffing.

#### **Rural Health Emergency Telemedicine Collaboration**

• The Hopi Health Care Center, with funding assistance from the USDA Rural Utility Service Distance Learning and Telemedicine grant program, has embarked on a collaboration with Harvard Medical School, the Institute for International Emergency Medicine and Health, and the Brigham and Women's Hospitals for clinical and community emergency procedure and patient management training. An Emergency Medicine Leadership Forum recently held at the Hopi Health Care Center identified key opportunities for improved outreach and education using telemedicine technologies.

## 3.9 Networks And Partnerships

Several key telemedicine network partnerships exemplify opportunities for new service development:

## Alaska Federal Health Care Access Network (AFHCAN)

 AFHCAN is a unique partnership of the Department of Veteran's Affairs, Department of Defense, Department of Homeland Security (U.S. Coast Guard), Indian Health Service, and the Alaska Native Tribal Health Consortium to provide health care to over 300,000

federal beneficiaries in the state of Alaska. AFHCAN presently offers outreach via telemedicine to 248 AFHCAN project sites. AFHCAN software supports an enterprise-wide telehealth solution – allowing 42 deployed servers throughout the state to communicate and securely share telehealth data. This is the third generation of AFHCAN's easy-to-use web-based software application.



## IHS Southwest Telehealth Consortium (SWTHC)

Broadband telecommunication networks in the Navajo and Phoenix Areas reflect a strong
commitment to telehealth care in the Southwest. This commitment is exemplified by
formative regional planning on shared telehealth capacity and directions by SWTHC.
SWTHC offers Area Directors, Chief Medical Officers, and other key staff the opportunity
to review regional progress on infrastructure, project development, and pressing health
care delivery issues – all with an eye toward enhancing service delivery via telehealth.

## **Arizona Telemedicine Program (ATP)**

 ATP interconnects 150 network members and affiliated network sites via broadband private telecommunication circuits. 27 American Indian communities are linked to ATP. The Navajo, Phoenix, and Tucson Areas are active partners with ATP for new telemedicine project development, network engineering support, and telecommunication infrastructure development within Arizona.



#### "Four Corners" Telehealth Consortium

A developing collaboration between the Arizona Telemedicine
 Program, the University of New Mexico Center for Center, the Utah Telehealth Network,
 and the University of Colorado Health Sciences Center may extend opportunities for
 regional telehealth care and policy development in the US Southwest.

#### **Project TOUCH (Telehealth Outreach for Unified Community Health)**

• The project examines the use of advanced computing methods such as virtual reality multi-point simultaneous telecommunications to enhance educational outcomes. The network partners included: University of New Mexico (UNM) School of Medicine, University of Hawaii John A. Burns School of Medicine, The UNM Health Sciences Library and Informatics Center, and Northern Navajo Medical Center.

## 3.10 Interagency Collaborations

Important collaboration work between the Indian Health Service and other federal agencies continues to promote the appropriate and effective use of telehealth care. Opportunities for strategic project development are actively being explored with:

#### **Veterans Health Administration (VHA)**

- American Indian veterans in the Aberdeen Area currently receive mental health services
  from the American Indian and Alaska Native Programs at the University of Colorado
  Health Sciences Center (UCHSC). A UCHSC psychiatrist, employed in part by VHA,
  cares for veteran patients with Post Traumatic Stress Disorder via tele-psychiatry clinics
  in IHS facilities. Individual and group tele-mental care is provided.
- Multiple IHS Areas are planning or considering collaborative clinical projects with regional VHA Medical Centers. The April 2005 VHA Care Coordination and Telehealth Leadership Forum represents an important venue for shared project development, knowledge transfer, and inter-agency telehealth special interest group formation related to diabetes care, elder care and home health, mental health, eye care, and rehabilitative care.

## **Department of Defense (DoD)**

 The IHS has partnered with DoD to provide IHS guidance in the development of the Joslin Vision Network and the Comprehensive Diabetes Management Program. IHS involvement is helping this DoD-funded technology to have maximum potential utility for IHS system applications.

## 3.11 Integrated Systems Of Care

The IHS Electronic Health Record (IHS EHR) is being implemented in IHS and Tribal facilities. Planning is underway to assure effective integration of telehealth images, reports, and needs with the IHS EHR – and into the evolving Indian health care information technology infrastructure.

#### What is Telehealth?

• The boundary line between "Telehealth", "eHealth" and electronic/Web-based health information technology is increasingly blurred. Many new technology-based tools are available for improved health care delivery. It is critical that these tools be used in a way that promotes secure and confidential integrated service delivery, regardless of how the tools are categorized.

#### **Enterprise Architecture**

 Integration of diverse information technology initiatives will help ensure access to comprehensive medical records for all members of the clinical team. It will also permit development of regional services for patient records and management, clinical consultation, and data storage. Enterprise solutions for image capture, display, and storage will improve regional health care and build critical infrastructure for telehealth collaborations.

## **Vista Imaging**

Clinical images and studies are a critical component of a patient health record. Plans are
in progress to complement the text IHS EHR with the Veteran's Health Administration
Vista Imaging program – offering IHS and Tribal clinicians seamless point-of-care display
of patient-related text and image information.

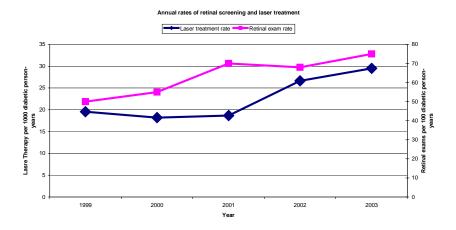
## 3.12 Performance Improvement

Telehealth clinical applications support local agency-wide initiatives for improved outcomes and increased patient safety.

## Clinical Reporting System (CRS)

Telehealth care, in conjunction with integrated electronic record-keeping, offers promise
for measurable improvements in health indicators. A "cross-walk" between CRS
indicators and telehealth projects has been created to help IHS/Tribal facilities identify
quality indicators amenable to telehealth tools (appendix A).

The following graph demonstrates how implementation of the IHS Joslin Vision Network in one Phoenix Area clinic has resulted in measurable improvements in both annual patient screening for retinal disease and corrective treatment of identified eye disease in patients screened.



## **Patient Safety**

Novel telehealth applications, such as tele-pharmacy, offer promise for patient safety, especially for facilities with local staffing shortages. Increasing use of computerized medication order entry by IHS and Tribal clinicians will decrease medication errors. Telepharmacy and related tools will help streamline medication dispensing for remote health centers and clinics, while assuring quality process review of medication appropriateness, possible interactions with other prescribed medications, and patient education and counseling.

## 3.13 Grants For Project Development

Since 1994, federal grant opportunities through the Office for the Advancement of Telehealth (OAT), the Rural Utilities Service (RUS) Distance Learning and Telemedicine Program, and the National Telecommunications Information Administration's Top Technology Program (TOP) have helped establish telehealth programs in rural and underserved communities. Some National Library of Medicine (NLM) programs have also helped meet telecommunication network needs.

The following table includes some recent grant recipients. While not all grants listed in this table have been specific to telehealth, they have all contributed to the grantees' ability to deliver telehealth service.

Facility	IHS Area	Project Focus	Funding Source
AFHCAN	Alaska	Telehealth Equipment for AFHCAN carts	Rural Utilities Service (2 grants)
Cherokee Nation	Oklahoma	Multiple Clinic Network	National Library Medicine
Cherokee Nation	Oklahoma	Radiology Network	Tribal Funds
Cheyenne River Sioux Telephone Authority	Billings	Web-based Certified Nursing Assistant Training	Technology Opportunity Program
Choctaw Health	Oklahoma	Telemedicine Carts & Wide Area Network	Rural Utilities Service (3 grants)
Confederated Goshute	Phoenix	Network Connection	Rural Utilities Service
Gila River Hlth Care	Phoenix	IT System Implementation	National Library Medicine
Hopi Health Care Center	Phoenix	Rural Health Emergency Telemedicine Collaboration	Rural Utilities Service
Leech Lake Tribal Health	Bemidji	Tele-home Care & Wide area network	Technology Opportunity Program
Mille Lacs Band of Ojibwe	Bemidji	Tele-pharmacy project	Rural Utilities Service
Tuba City Reg Hlth Care	Navajo	Extending Telemedicine to community chapter houses	Rural Utilities Service

## 3.14 USAC Rural Health Care Division

The Rural Health Care Division (RHCD) of the Universal Services Administration (USAC) offers discounts for telecommunication services and internet access to Health Care Providers (HCP) located in rural areas. The discount is based on the urban-rural difference for telecommunication circuit rates charged in the urban area closest to the HCP.

Up to \$400 million a year may be obligated, but actual annual disbursements have been much less. Most IHS and Tribal facilities are eligible to receive these reimbursements. <a href="http://www.rhc.universalservice.org">http://www.rhc.universalservice.org</a>

16

## 3.15 Regulations

Regulations play a key role in project planning and implementation. An "FAQ Sheet" is being prepared to assist IHS/Tribal facilities in various regulatory aspects of telehealth. Critical areas for attention include:

#### **Clinician Credentialing**

Credentialing and privileging must be properly addressed for telehealth service delivery.
 Updated standards from the Joint Commission on the Accreditation of Hospital Organizations (JCAHO) offer options for credentialing that aid facilities in the implementation of JCAHO-compliant policies and procedures.

## **Licensing and Liability**

 As with on-site service providers, telehealth service providers are not required – by the IHS or by the Federal Tort Claims Act - to hold licenses in the state where the IHS or Tribal facilities receiving telehealth services exist. However, state-specific medical board licensing requirements and regulations may exist. Analysis is underway to help IHS/Tribal facilities interpret the sometimes confusing landscape of inter-state medical licensing for telehealth care.

#### Reimbursement

• While improvements have occurred regarding reimbursement for telehealth services, work remains to be done. Ongoing efforts by groups such as the American Telemedicine Association continue to result in improve coverage from 3rd party insurance carriers for telehealth services. Medicare has released guidelines for telemedicine reimbursement. While Medicaid programs in only Alaska and Hawaii have demonstration status for "store-and-forward" telemedicine reimbursement, more states are reviewing the impact of telehealth on service delivery – and more private insurance carriers are reimbursing for such services. Importantly, Medicaid reimbursement for telehealth service is permitted "at the State's option, as a cost-effective alternative to the more traditional ways of providing medical care (e.g. face-to-face consultations or examinations). ...At least eighteen states are allowing reimbursement for services provided via telemedicine for reasons which include improved access to specialists for rural communities and reduced transportation costs".<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> CMS Website: <a href="http://cms.hhs.gov/states/telemed.asp">http://cms.hhs.gov/states/telemed.asp</a>

#### 3.16 Barriers To Telehealth Use

Despite improvements in technology and infrastructure, many Indian health facilities do not, at present, benefit from telehealth service delivery. Reasons include:

#### **Telecommunications**

• Rural telecommunication infrastructures remain underdeveloped in many locations. Many IHS/Tribal facilities may not realize that funding support from the USAC Rural Health Care Division exists. Sometimes, telecommunication improvements for telehealth services have resulted in enhanced regional telecommunication infrastructure for non-health care needs. Ongoing work to implement secure, redundant, USAC-reimbursable, "broadband" telecommunication services is critical to the successful realization of telehealth service potential.

## **Project Planning**

Does telehealth only augment existing health services or can it be used to support
evolving models of health care delivery? What "resource shifting" is possible – or even
required - from current service delivery approaches to ones that include telehealth care?
As more information is available to answer these questions, more facilities may
understand and identify the optimal time for investment in telehealth technology.

## **Sustainability and Change**

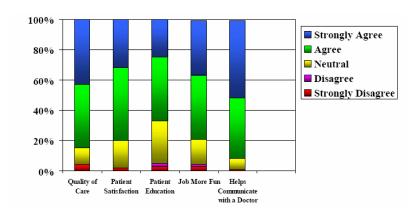
• Telehealth care involves change. Some "late adopters" of new technology and tools for service delivery appropriately require assurance that clinical and business processes are in place to support new approaches to care. How and when is telehealth care financially sustainable? Ongoing dialogue and analysis, both within Indian health care and across the national U.S. health care system, will help identify sustainable models of care that include telehealth care and related technology. Published data, however, indicates that cost-effective "break-points" exist for some clinical telehealth modalites. A modality-specific assessment of financial sustainability may be critical to a full understanding of telehealth potential.

#### 3.17 Evaluation

Understanding the impact of new technology on health care delivery is critical. Such evaluation should assess factors such as:

#### Patient and Health Professional Satisfaction

 Growing experience with telehealth demonstrates high patient and health professional satisfaction with the new technology. Extensive survey information and key informant interviews from AFHCAN provide valuable data concerning the impact of telehealth in Alaska. The following chart, for example, summarizes responses from health care professional in Alaska to 5 dimensions of telehealth measured during a recent evaluation of the AFHCAN network.



#### **Clinical Outcomes**

• As already noted, measurements of performance improvement are essential to the assessment of new telehealth technology. Such measurements should consider Indian health-specific care as well as care in university, private, and other public health settings.

#### **Health Care Costs**

 Published literature highlights thresholds that many clinical applications must reach before telehealth is cost-effective. As costs decrease - for both the technology and the telecommunication infrastructure to use it - these thresholds become increasingly affordable for many smaller hospitals and clinics.

#### **Geographic Variations in Care**

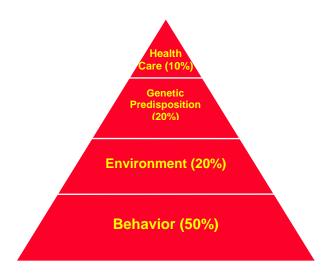
 How might telehealth care help alleviate regional differences in procedures and clinical outcomes? Virtual Centers of Excellence and regional service delivery collaborations hold promise as opportunities to standardize approaches to care and decrease variations in referral specialist procedure decisions. Plans are underway to design assessments that might assess the impact of telehealth care on such variations.

#### 3.18 Telehealth In Context

Telehealth brings new tools for service delivery into the broader context of health care. This context includes health promotion, disease prevention, and public health planning – a context well beyond the delivery of services and treatments for patients with acute conditions.

#### **Factors that Affect Health Status**

• The health status of people and communities is influenced by more than the acute health care services of the local health system. As shown in the pyramid below, factors other than direct health care are major contributors to the health status of individuals and communities. A challenge for new technologies such as telehealth care is to identify what value they may bring to projects working to address the lower layers of the health status pyramid. Can telehealth care augment efforts at behavior change? Tele-home health projects conducted to date suggest that it can.



#### **Chronic Care Model**

• New technologies such as telehealth offer advantages for distributed models of care. Such models can emphasize "service to the point of need" – care delivered for patients when and where it is needed. Such care is built upon patient and family involvement in care decisions and a case management approach to care for chronic conditions. Tools that can help the health care team manage medical conditions while patients continue with their normal activities hold great promise.

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## 4.0 New Directions

Telehealth projects identified in this directory underscore the commitment made in many Indian health facilities to improved access to care, timely medical decision-making, and distance learning via advanced telehealth care technology. They lay the foundation for future efforts to:

- bridge the "digital divide" that may isolate patients and health care practitioners in rural communities from advances in medical diagnosis and treatment in referral centers;
- · decrease delays in local patient access to timely diagnosis and treatment;
- decrease regional geographic variation in clinical procedures and outcomes;
- increase quality of care;
- explore possibilities for "service to the point of need", enhancing clinical and educational outreach to families in their communities;
- integrate outreach into emerging "point-of-care" electronic medication ordering, clinical decision support, and medical-record keeping;
- improve the business processes of local and regional health care;
- consider new approaches to community-based health promotion and healthy behavior change;
- develop and implement Virtual Center of Excellence models within Indian health care.

Importantly, telehealth care must not be perceived as an activity separate from new developments in the broader arena of information technology (IT). Consideration must be given to the successful integration of telehealth care software programs and clinical process needs during the implementation of electronic health records and other new point-of-care IT activities.

Telehealth care must also not be isolated from broader trends and needs in health care delivery. Indeed, those trends and needs should guide new application development and review of project effectiveness.

Although this summary demonstrates a breadth of telehealth care activity already underway in many Indian health care facilities, continued effort is necessary. Many facilities do not yet utilize telemedicine capability. Almost all facilities - even those sites with substantive telehealth programs - have much to learn regarding optimum integration of telehealth capability into business processes and resource allocation models.

Ongoing work in telehealth care must emphasize collaboration and regional economies of scale – "shared clinical project visioning" – so that all IHS and Tribal facilities may more fully implement, evaluate, and realize opportunities to enhance clinical care and public health. Efforts to improve regional telecommunication and information technology infrastructures will enable expanded project development, consolidation of resources, and creative health care outreach.

New models for health care delivery are possible as more experience is gained with emerging advanced technologies. Such technologies offer great promise for measurable improvements in access to care, clinical quality, and patient safety.

# 5.0 Charts

## 5.1 Clinical Services by Area

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## 5.2 Program Components by Area

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\*\* Extensive Alaskan Partnerships at multiple sites: ANTHC PHHS IHS VHA Dept of Defense Coast Guard Alaska Dept of Hith and Soc Srvcs

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California Telemedicine Electronic Health¹ Northern California Telemedicine Network² Univ Calif Davis School of Medicine³ OAT grant⁴

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		Chinle Comprehensive Health Care	•	•							•			•									٠		
		Ft. Defiance Indian Hospital	•	•							•			•								•	•		
		Kayenta Health. Center		•				8 0		•			8 10	•	•			•				•	•		8
		Inscription House Health Center	•	•						•				•	•			•	•			•	•		
ajo		Sage Memorial Hospital									٠			٠	•			•				•	•		Г
Navajo		Tuba City Regional Health Care	•	•			•	0			•			•	•			•	•		•	•	•	•	8
		Winslow Indian. Health Center	•	•						•				•				•				٠			
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		Crownpoint Health Care	•	•							•			•				•				•	•		
		Gallup Indian Med Center	•								•			•				•				•	•		
		Northern Navajo Med Center	•								٠			•				•			•	٠	•		
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ō		Wewoka Ind Health Center	•							•								•					8 13		
		Cherokee Rural Health Network	•							•								•							
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		Choctaw Nation	•	•						٠				•	•			•							
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		Hopi Health Care Center	•						•	•			•	٠			•					•1		
		Gila River Health Care Corporation	•	•						•			•	•			•							
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nix		Peach Springs Indian Health Center								•			•				•					•1		
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		Salt River Health Clinic	•							•			•				•					•1		
		San Carlos Indian Hospital											•				•					•1		
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		Duckwater Tribal Health Clinic							•	•				•			•					•1		
		Goshute Indian Clinic	•						•	•				•			•			- 2		•1		
		Reno Sparks Indian Hospital	•						٠	•				٠			•					•1		

## Telehealth Care in Indian Health

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		Benewah Medical Ctr	•							•			•				•							
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		Nimiipuu Health Clinic	•							•			•				•							
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a	WA	Coleville Indian							10															
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		Yakama Indian Hospital	•	•						•			•				•							
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## 5.3 Clinical Services by Type and Area

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Те	lehealth Modality By Area	Aberdeen	Alaska	Albuquerque	Bemidji	Billings	California	Nashville	Navajo	Oklahoma	Phoenix	Portland	Tucson	
	Anesthesiology	•											$\vdash$	
	Cardiology	•	•				•		•	•	•			
Ž.	Child Abuse	2000 2000	1			- 22		× =	20022		00 00			
	(IHS/OVCProgram)	•	10.00	•		•	- 12	_	•		•			
	Dental	•	٠					0 == = : 2:			•			
	Dermatology	•	٠	•	•	٠	•		•	٠				
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	ENT	•	•	, i	•	•		8		٠	( ) ( )			
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>	Geriatrics	•	i j					2				) Y		
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la	Mental Health	•	•				•	•	•	•	•	•		
ŏ	Nephrology				•			0	•					
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2	Nutrition	•	٠						•					
all	OB/GYN	•	•											
Je	Oncology	•					) - 10 m	S -	•		60 00 60 40			
e	Ophthalmology	•					•			٠				
<b>Telehealth Modality</b>	IHS/JVN Teleoph	•	٠	•		•		•	•	٠	•	•	•	
	Orthopedics	•	٠		•									
3	Pain		20 A				•		•					- 2
	Pediatrics		•				•							
	Pharmacy		•		•			•			•			
	Pulmonology	٠							•					
	Radiology	٠	٠	•	•	•	- 3		٠	٠	•			
	Rehabilitation	٠	•		•					88				
	Rheumatology	٠			•									
	Surgery	٠	٠						•		•			
	Urology		•											
	Wound Care	•					•	\$	6	٠	•	3		

## 6.0 Glossary of Terms

**Distance Learning**—Education delivered through distributed resources via advanced telecommunications, allowing instruction and learning to occur independent of time and place.

**Real-time or Synchronous Transmission**—Videoconference where parties on both or all ends of the connection are interacting live. Data acquisition, processing, and presentation all occur simultaneously in a system.

**Store and Forward**—The transmission of still images or audiovisual clips from clinical consultations by a practitioners to a remote data storage device, from which they can be retrieved by a health care professional. This enables a practitioner to giver his/her opinion on the consultation without the need for simultaneous availability of both clinicians.

**Teleconferencing**—An interactive communication involving exchanges of voice, video, and data between people at two or more sites that is made possible by using telecommunications systems.

**Teleconsultations**—Health care consultations in which the participants are separated by geographical distance and may also be separated in time.

**Telehealth**—Telehealth refers to the use of telecommunication technologies for clinical care (telemedicine), patient teaching and home health, health professional education (distance learning), administrative and program planning, and other diverse aspects of a health care delivery system.

**Telemedicine**—The use of communication and information technologies to provide or support clinical care at a distance.

**Telemonitoring**—This term means the use of telecommunications media to monitor the health status of patients at distance.

## 7.0 APPENDIX A: Telehealth to CRS Indicator "Crosswalk"

Performance Indicator	2005 Target	2006 Towart	Can Telehealth Help?	How?
Performance Indicator	2005 Target	2006 Target TREATMENT INDICATORS	Can Teleneatti Heip:	How:
		Diabetes Group		
Diabetes: Poor Glycemic Control: Assure that the proportion of patients with diagnosed diabetes that have poor glycemic control does not increase [intermediate outcome]	During FY 2005, assure that the proportion of patients with diagnosed diabetes that have poor glycemic control does not increase above the FY 2004 level.	During FY 2006, assure that the proportion of patients with diagnosed diabetes that have poor glycemic control does not increase above the FY 2005 level.	Yes	Telehome health may help address this standard via enhanced case management in the evolving chronic care model.
<u>Diabetes: Good Glycemic</u> <u>Control:</u> Address the proportion of patients with diagnosed diabetes that have demonstrated improved glycemic control. [intermediate outcome]	During FY 2005, maintain the proportion of patients with diagnosed diabetes that have demonstrated ideal glycemic control at the FY 2004 level.	During FY 2006, maintain the proportion of patients with diagnosed diabetes that have demonstrated ideal improved glycemic control at the FY 2005 level.	Yes	Telehome health may help address this standard via enhanced case management in the evolving chronic care model.
Diabetes: Blood Pressure Control: Address the proportion of patients with diagnosed diabetes that have achieved blood pressure. [intermediate outcome]	During FY 2005, maintain the proportion of patients with diagnosed diabetes that have achieved blood pressure control at the FY 2004 level.	During FY 2006, maintain the proportion of patients with diagnosed diabetes that have achieved blood pressure control at the FY 2005 level.	Yes	Telehome health may help address this standard via enhanced case management in the evolving chronic care model.
Diabetes: Dyslipidemia Assessment: Address the proportion of patients with diagnosed diabetes assessed for dyslipidemia. [intermediate outcome]	During FY 2005, maintain the proportion of patients with diagnosed diabetes assessed for dyslipidemia (LDL cholesterol) at the FY 2004 level.	During FY 2006, maintain the proportion of patients with diagnosed diabetes assessed for dyslipidemia (LDL cholesterol) at the FY 2005 level.	Yes	Telehome health may help address this standard via enhanced case management in the evolving chronic care model.
Diabetes: Nephropathy Assessment: Address the proportion of patients with diagnosed diabetes assessed for nephropathy. [intermediate outcome]	During FY 2005, maintain the proportion of patients with diagnosed diabetes assessed for nephropathy at the FY 2004 level.	During FY 2006, maintain the proportion of patients with diagnosed diabetes assessed for nephropathy at the FY 2005 level.	Yes	Telehome health may help address this standard via enhanced case management in the evolving chronic care model.

Performance Indicator	2005 Target	2006 Target	Can Telehealth Help?	How?
<u>Diabetic Retinopathy:</u> Address the proportion of patients with diagnosed diabetes who receive an annual diabetic retinal examination at designated sites. [intermediate outcome]	During FY 2005, maintain the proportion of patients with diagnosed diabetes who receive an annual diabetic retinal examination at designated sites at the FY 2004 rate.	During FY 2006, maintain the proportion of patients with diagnosed diabetes who receive an annual diabetic retinal examination at designated sites at the FY 2005 level.	Yes	IHS JVN program has demonstrated improved screening rates and subsequent laser treatment for identified retinal disease.
		Cancer Screening Group		
Cancer Screening: Pap Smear Rates: Address the proportion of eligible women patients who have had a Pap screen within the previous three years. [intermediate outcome]	During FY 2005, maintain the proportion of eligible women who have had a Pap screen within the previous three years at the FY 2004 levels.	During FY 2006, maintain the proportion of female patients ages 21 through 64 without a documented history of hysterectomy who have had a Pap screen within the previous three years at the FY 2005 level.	Yes	Mobile women's health services will be provided in the Aberdeen Area. This service delivery will include telemammography services and real-time access to information systems.
Cancer Screening:  Mammogram Rates: Address the proportion of eligible women who have had mammography screening within the last 2 years. [intermediate outcome]	During FY 2005, maintain the proportion of eligible women patients who have had mammography screening at the FY 2004 rate.	During FY 2006, maintain the proportion of female patients ages 50 through 64 who have had mammography screening within the last 2 years at the FY 2005 level.	Yes	Digital mammography, with real-time interpretations available via telehealth, can enhance opportunities for screening. Mobile service deliver is possible.
Cancer Screening: Colorectal Rates: Address the proportion of eligible patients who have had appropriate colorectal cancer screening. [intermediate outcome]	No indicator.	During FY 2006, establish baseline rate of colorectal screening for clinically appropriate patients ages 50 and older.	Yes	General surgeons at referrals facilities may offer preendoscopy counseling via telemedicine to patients in remote clinics.
	Alc	ohol and Substance Abuse Group		
RTC Improvement/Accreditation: Assure quality and effectiveness of Youth Regional Treatment Centers. [intermediate outcome; changes to output in 05]	RTC Accreditation: During FY 2005, the Youth Regional Treatment Centers that have been in operation for 18 months or more will achieve 100% accreditation either through CARF or a comparable accreditation process.	RTC Accreditation: During FY 2006, the Youth Regional Treatment Centers that have been in operation for 18 months or more will achieve 100 % accreditation either through CARF, or a comparable accreditation process.	Possibly	Might access to services via telemedicine for YRTCs assist with accreditation?

Performance Indicator	2005 Target	2006 Target	Can Telehealth Help?	How?
Alcohol Screening (FAS Prevention): Address screening for alcohol use in appropriate female patients. [intermediate outcome]	During FY 2005, increase the screening rate for alcohol use in women of childbearing age over the FY 2004 rate.	During FY 2006, increase the screening rate for alcohol use in females ages 15 to 44 over the FY2005 rate.	Yes	Models for improving FAS screening may be shared via videoconferencing (e.g. CMS network, other distance learning avenues).
		Oral Health		
Fluoridated Water: Address access to optimally fluoridated water for the AI/AN population. [intermediate outcome]	During FY 2005, establish (1) the baseline number of topical fluoride applications provided to American Indian and Alaska Native patients, with a maximum number of four applications per patient per year and (2) the baseline number of American Indian and Alaska Native patients receiving at least one topical fluoride application.	During FY 2006, increase by 1% (1) the number of topical fluoride applications provided to American Indian and Alaska Native patients, with a maximum number of four applications per patient per year and (2) the number of American Indian and Alaska Native patients receiving at least one topical fluoride application above the FY 2005 levels.	No	
Dental Access: Address the proportion patients who obtain access to dental services. [intermediate outcome]  EFFICIENCY MEASURE	During FY 2005, maintain the proportion of patients that obtain access to dental services at the FY 2004 level.	During FY 2006, maintain the proportion of patients that obtain access to dental services at the FY 2005 level.	Yes	Headstart screenings by dental technicians can be shared real-time – via regular phone lines – with dentists in I/T/U facilities.
Dental Sealants: Address the number of sealants placed per year in American Indian and Alaska Native patients. [intermediate outcome]	During FY 2005, maintain the number of dental sealants placed per year in American Indian and Alaska Native patients at the FY 2004 level.	During FY 2006, maintain the number of dental sealants placed per year in American Indian and Alaska Native patients at the FY 2005 level.	No	
Diabetes: Dental Access: Address the proportion of patients diagnosed with diabetes who obtain access to dental services. [intermediate outcome]	During FY 2005, maintain the proportion of patients with diagnosed diabetes who obtain access to dental services at the FY 2004 level.	During FY 2006, maintain the proportion of patients with diagnosed diabetes who obtain access to dental services at the FY 2005 level.	Yes	Telehome health may help address this standard via enhanced case management in the evolving chronic care model.

Performance Indicator	2005 Toward	2006 Toward	Com Talahaaliih Halm?	How?	
Performance Indicator 2005 Target 2006 Target Can Telehealth Help? How?  Family Abuse, Violence, and Neglect Indicator					
			cator	N. 11 C : :	
Domestic (Intimate Partner) Violence Screening: Address the proportion of women who are screened for domestic violence at health care facilities. [intermediate outcome]	During FY 2005, the IHS will maintain the screening rate for domestic violence in females ages 15 through 40 at the FY 2004 rate.	During FY 2006, increase the screening rate for domestic violence in females ages 15 through 40 over the FY 2005 rate.	Yes	Models for improving screening may be shared via videoconferencing (e.g. CMS network, other distance learning avenues). Could screening also occur via community/school-based kiosks?	
	Informa	ation Technology Development G	roup		
Data Quality Improvement: Expand the automated extraction of GPRA clinical performance measures and improve data quality.	During FY 2005, implement a national program to improve the quality, accuracy and timeliness of Resource Patient Management System (RPMS) Patient Care Component (PCC) clinical data to support the Agency's GPRA clinical measures by expanding the current automated data quality assessment "package" to include two new additional clinical measures.	During FY 2006, continue the automated extraction of GPRA clinical performance measures through ongoing development and deployment of CRS (clinical indicator reporting system) software.	No		
Behavioral Health: Expand the Behavioral Health Data System by increasing use of appropriate software applications.	During FY 2005, expand the Behavioral Health (BH) Data System by increasing the number of sites using the RPMS Behavioral Health (BH) software application over the FY 2004 level.	A new behavioral health clinical indicator will be developed for FY 2006 that utilizes the enhanced functionality in the IHS Integrated Behavioral Health (IBH) application and reflects patient outcomes. The IBH application will be deployed within the IHS Electronic Health Record by the end of FY 2005.	Indirect help	BH package implementation may enhance tele-mental use, due to integrated medical record documentation capability.	

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Performance Indicator	2005 Target	2006 Target	Can Telehealth Help?	How? Increased access to telehealth
Urban IS Improvement:	During FY 2005, IHS will have in	During FY 2006, IHS will establish		services may encourage
Expand Urban Indian Health Program capacity for securing	place contract and grant requirements for all urban Indian	baseline participation in urban data sharing.		participation in data sharing.
mutually compatible automated	programs to provide a specified	snaring.		participation in data sharing.
information system that captures	data set in a standard format.		Indirect help	
health status, and patient care	data set in a standard format.			
data for the Indian health				
system.				
5) Sterin		Quality of Care Group		
Accreditation: Maintain 100%	During FY 2005, maintain 100%	During FY 2006, maintain 100%		Telehealth improves access to
accreditation of all IHS hospitals	accreditation of all IHS-operated	accreditation of all IHS-operated		services that aid facilities in
and outpatient clinics.	hospitals and outpatient clinics.	hospitals and outpatient clinics.	Yes	meeting clinical service,
			res	distance learning, and facility
				leadership goals.
Medication Error	During FY 2005, all direct care	During FY 2006, IHS will establish		Tele-pharmacy may assist
Improvement: Address	facilities shall be using the	and evaluate a medical error		facilities and regions with
medication errors by developing	NCCMERP nationally recognized	reporting system at 3 areas	Yes	reducing sources of medication
a reporting system to reduce	medication error definition, and		res	error identified by a reporting
medication error. [intermediate	shall have a non-punitive multi-			system.
outcome]	disciplinary medication error			
	reporting system in place.			
		PREVENTION INDICATORS		
Dublic Heelth Nameine		Public Health Nursing Indicator		Community-based services – in
Public Health Nursing:	During FY 2005, maintain the total number of public health	During FY 2006, a new interim		homes, schools, and
Address the number of public	nursing services (primary and	outcome indicator will be		community centers - are
health nursing services (primary and secondary treatment and	secondary treatment and	developed.		enhanced by telehealth service
preventive services) provided by	preventive services) provided to			delivery.
public health nursing.	individuals in all settings at the		<b>X</b> 7	derivery.
paone nearar narsing.	FY 2004 workload levels.		Yes	
EFFICIENCY MEASURE				

Performance Indicator	2005 Target	2006 Target	Can Telehealth Help?	How?	
Immunization Group					
Childhood Immunizations: Address rates for recommended immunizations for AI/AN children 19-35 months. [intermediate outcome]	During FY 2005, maintain baseline rates for recommended immunizations for American Indian and Alaska Native children 19-35 months compared to FY2004.	During FY 2006, maintain baseline rates for recommended immunizations for AI/AN children 19-35 months compared to FY 2005.	No		
Adult Immunizations: Influenza: Address influenza vaccination rates among non- institutionalized adult patients aged 65 years and older. [intermediate outcome]	In FY 2005, maintain FY 2004 rate for influenza vaccination levels among non- institutionalized adult patients aged 65 years and older (ON HOLD in FY 2005 due to influenza vaccine shortage)	In FY 2006, maintain FY 2005 rate for influenza vaccination levels among non-institutionalized adult patients aged 65 years and older	No		
Adult Immunizations: Pneumovax: Address pneumococcal vaccination rates among non-institutionalized adult patients age 65 years and older. [intermediate outcome]	In FY 2005, maintain the FY 2004 rate for pneumococcal vaccination levels among non-institutionalized adult patients age 65 years and older.	In FY 2006, maintain the FY 2005 rate for pneumococcal vaccination levels among non-institutionalized adult patients age 65 years and older.	No		
		Injury Prevention Group			
<u>Injury Intervention:</u> Support community-based injury prevention programs.	Web-based reporting: During FY 2005, develop a web-based data collection system to report injury prevention projects.	Web Based Reporting: During FY 2006, implement a web-based data collection system to report injury prevention projects.	No		
Unintentional Injury Rates: Address the number of unintentional injuries for AI/AN people. [outcome]	During FY 2005, reduce deaths caused by unintentional injuries to no higher than the FY 2004 level.	During FY 2006, reduce deaths caused by unintentional injuries to no higher than the FY 2005 level.	Yes	Best practice models for injury prevention may be shared via videoconferencing (e.g. CMS network, other distance learning avenues).	

Performance Indicator	2005 Target	2006 Target	Can Telehealth Help?	How?	
Suicide Prevention Indicator					
Suicide Surveillance: Support suicide prevention by collecting comprehensive data on the incidence of suicidal behavior. [Changes to intermediate outcome in FY 2006]	During FY 2005, integrate the Behavioral Health suicide reporting tool into RPMS	During FY 2006, establish baseline data on suicide using the RPMS suicide reporting tool.	No*	While telehealth may not assist with data collection, it can assist with prevention and intervention programs.	
	Develo	opmental Prevention and Treatme	ent		
CVD Prevention: Cholesterol: Support clinical and community-based cardiovascular disease prevention initiatives. [Changes to intermediate outcome in FY 2005]	CVD Prevention: Cholesterol: During FY 2005, establish the number of patients ages 23 and older that receive blood cholesterol screening	During FY 2006, increase the number of patients ages 23 and older that receive blood cholesterol screening.	Yes	Telehome health enhances case management in the evolving chronic care model.	
Obesity Assessment: Support clinical and community-based obesity prevention initiatives. [intermediate outcome]	During FY 2005, each area will increase the number of patients for whom BMI data can be measured by 5% percent.	During FY 2006, establish the obesity rates in children, ages 2-5 years. (Under review; may be revised)	Yes	Telehealth to chapter houses on the western Navajo Nation includes fitness/exercise classes.	
Tobacco Use Assessment: Support local level initiatives directed at reducing tobacco usage. [intermediate outcome]	During 2005, rates of screening for tobacco use in patients ages 5 and older will be maintained at FY 2004 rates.	During 2006, establish the rates of tobacco using patients that receive tobacco cessation intervention.	Yes	Educational information may be shared with students/schools via videoconferencing. (A Virtual Diabetes Care project in AZ lets students in different parts of the state meet via vtc.)	
HIV/AIDS Group					
HIV Screening/Status: Support screening for HIV infections in appropriate population groups. [intermediate outcome]	Prenatal HIV Screening: In FY 2005, establish baseline- screening rates for HIV in pregnant female patients.	Prenatal HIV Screening: In FY 2006, increase the screening rates for HIV in pregnant female patients.	Yes	Best practice models for HIV screening may be shared via videoconferencing (e.g. CMS network, other distance learning avenues).	

Performance Indicator	2005 Target	2006 Target	Can Telehealth Help?	How?
Environmental Surveillance: Implement automated web-based environmental health surveillance data collection system in tribal systems.	By the end of FY 2005, 12 environmental health programs will have reported the regionally appropriate environmental health priorities based on current community data into WebEHRS.	By the end of FY 2006, 50% more environmental health programs above FY 2005 level will have reported the regionally appropriate environmental health priorities based on current community data (a total of 18 programs in FY 2006) into WebEHRS.	No	
	CAPITAL PROGR	RAMMING/INFRASTRUCTURE	INDICATORS	
Sanitation Improvement: Provide sanitation facilities to new or like-new homes and existing Indian homes. [outcome]  EFFICIENCY MEASURE	During FY 2005, provide sanitation facilities projects to 22,000 Indian homes with water, sewage disposal, and/or solid waste facilities.	During FY 2006, provide sanitation facilities projects to 22,000 Indian homes with water, sewage disposal, and/or solid waste facilities.	Indirectly	Engineers may use videoconferencing for project planning and collaboration.
Sanitation Improvement A.  During FY 2006 20% of the homes served, will be at  Deficiency Level 4 or above as defined by 25 USC 1632	No indicator.	During FY 2006 20% of the homes served by the Sanitation Facilities Construction Program funding for the backlog of needs for existing homes will be at Deficiency Level 4 or above as defined by 25 USC 1632.	No	
Health Care Facility Construction: Improve access to health care by construction of the approved new health care facilities. [outcome]	During FY 2005, increase the modern health care delivery system to improve access and efficiency of health care by assuring the timely phasing of construction of identified health care facilities.	During FY 2006, increase the modern health care delivery system to improve access and efficiency of health care by assuring the timely phasing of construction of identified health care facilities.	Yes	Planning for telehealth prior to new facility construction may greatly enhance access to care/system efficiencies.

# 8.0 APPENDIX B: IHS/JVN Teleophthalmology Program

Area	State	Location	Facility	I/T/U	Date of Deployment
	ND	Ft Belknap	Ft Belknap Health Center	IHS	Jan 2004
Aberdeen	SD	Pine Ridge	Pine Ridge Comprehensive Healthcare Facility	IHS	Jul 2002 (inactive)
	SD	Rosebud	Rosebud Comprehensive Health Care Facility	IHS	Jan 2004
Alaska	AK	Fairbanks	Tanana Chief's Conference	Tribal	Aug 2002
Albuquerque	NM	Santa Fe	Santa Fe Indian Hospital	IHS	Jan 2005
Bemidji	MN	Cass Lake	Cass Lake Indian Hospital		Feb 2004
Billings	MT	Crow Agency	Crow Agency Indian Hospital	IHS	
Nashville	TX	Livingston	Chief Kina Health Center	Tribal	Apr 2004
Navajo	AZ	Tuba City	Tuba City Regional Health Care Corporation	Tribal	Oct 2002
Navajo	NM	Crownpoint	Crownpoint Indian Hospital	IHS	Nov 2003
	10101	Shiprock	Northern Navajo Medical Center	IHS	Jan 2005
	OK	Clinton	Clinton Indian Hospital	IHS	Mar 2004
Oklahama City		Lawton	Lawton Indian Hospital	IHS	Mar 2004
Oklahoma City		Wewoka	Wewoka Indian Hospital	IHS	Sep 2004
	KS	Lawrence	Haskell Health Clinic	IHS	Jan 2004
		Parker	Parker Indian Hospital	IHS	Sep 2002
		Peach Springs	Peach Springs Health Clinic	IHS	Apr 2003
Phoenix	AZ	Phoenix	Phoenix Indian Medical Center	IHS	May 2000
Filoeilix		Polacca	Hopi Health Care Center	IHS	Sep 2002
		Salt River	Salt River Indian Health Center	IHS	Aug 2003
		San Carlos	San Carlos Indian Hospital	IHS	Apr 2003
	ID -	Lapwai	Nimiipuu Health	Tribal	Dec 2004
		Plummer	Benewah Health Center	Tribal	Mar 2003
Portland	OR	Warm Springs	Warm Springs Health & Wellness Center	Tribal	Dec 2004
rortialid	WA	Nespelem	Colville Indian Health Center	Tribal	Nov 2003
		Yakama	Yakama Indian Hospital	IHS	Sep 2004
		Wellpinit	Dave Wynecoop Memorial Clinic		Dec 2004
Tucson	AZ	Sells	Sells Indian Hospital	IHS	May 2000

## 9.0 APPENDIX C: IHS/JVN QA/Peer Review 2005

The IHS/JVN Teleophthalmology Program has an active Quality Assurance (QA) and Peer Review (PR) process. The methods, mechanics, and goals of the program are described in the IHS/JVN QA/PR Manual. The following data is a periodic summary report of provider specific QA/PR for an IHS/JVN Reader or Adjudicator. As applicable, the following data samples are obtained:

- Administrative
  - A. IHS/JVN PCC documentation- SOAP review
  - B. IHS/JVN report protocol
    - 1. Facility preferences satisfied
    - 2. DR pathology documented
    - 3. Non-DR pathology documented
    - 4. Recommendations documented
    - 5. Signature/legibility
  - C. IHS/JVN Staff meeting attendance
- II. Clinical- Provider Specific
  - A. Conventional activity (live, face-to-face): drawn from separate PIMC QA/PR reports
  - B. IHS/JVN
    - 1. DR- > 1 level disagreement
    - 2. DME- disagreement
    - 3. Non-DR- disagreement
- III. Clinical- IHS/JVN National Reading Center aggregate- comparison of JVN outcome to that of a conventional live examination of cases referred to the PIMC Eye Department
  - A. DR level
  - B. DME
  - C. Non-DR pathology
- IV. Sentinel Events and Provider Complaints

#### **CAUTION**

This QA/PR data is confidential and protected from discovery only if its availability is confined to "need-to-know" staff associated with your peer review, risk management, and privileging & credentialing process. Please insure that the confidentiality of this data is preserved.

## 10.0 APPENDIX D: Federal Grants

### **National Library of Medicine (NLM)**

NLM's searchable database (CRISP) <a href="http://crisp.cit.nih.gov/">http://crisp.cit.nih.gov/</a> displays all grants and contracts available across the entire agency. All programs are announced on the NLM Web site at: <a href="http://www.nlm.nih.gov">http://www.nlm.nih.gov</a>.

### National Telecommunications and Information Administration (NTIA)

NTIA's *Technology Opportunity Program (TOP)* is highly competitive, merit-based grant program that brings the benefits of digital network technologies to communities throughout the United States. TOP projects demonstrate how digital networks support lifelong learning for all Americans, help public safety officials protect the public, assist in the delivery of healthcare and public health services, and foster communication, resource sharing, and economic development within rural and urban communities. <a href="http://www.ntia.doc.gov/top">http://www.ntia.doc.gov/top</a>

#### Office for the Advancement of Telehealth (OAT)

Since 1989, OAT, formerly located with the Office of Rural Health Policy, has invested more than \$200 million in funding Telemedicine/Telehealth demonstration and evaluation projects, including projects funded under the Rural Health Outreach Grant Program.

In FY 2004, Congress did not appropriate additional funds for more competitive project starts. As a result, OAT is not currently soliciting NEW applications for telehealth programs. Congress has, however, identified OAT as the manager for additional telehealth projects. OAT continues to administer 35 previously funded projects in extension periods.http://Telehealth.hrsa.gov

#### Office for Rural Health Policy (ORHP)

ORHP grant funds are available for projects that support the direct delivery of healthcare and related services, expand existing services, or enhance health service delivery through programs that provide direct healthcare, provide health education, promotion and prevention or address other health related needs. The emphasis is on the actual delivery of specific services rather than the development of organizational capabilities. <a href="http://www.ruralhealth.hrsa.gov">http://www.ruralhealth.hrsa.gov</a>.

#### **Rural Utilities Service (RUS)**

The U.S. Depart of Agriculture's RUS Distance Learning and Telemedicine Loan and Grant Program encourages and improves the use of telecommunications, computer networks and related technologies for rural communities to improve access to education and healthcare services. The program provides grants, combination loan-grants and loans. More than 500 projects have been funded since 1993. http://www.usda.gov/rus/telecom/dlt/dlt.htm

## 11.0 APPENDIX E: Resources and Information

### Agency for Healthcare Research and Quality

AHRQ administers a \$50 million portfolio of grants, contracts, and other activities to demonstrate the role of health information technology in improving patient safety and the quality of care. The grant program *Transforming Healthcare Through Information Technology* is part of a larger initiative to support investments in information technology in the nation's healthcare delivery system.

http://grants.nih.gov/grants/guide/rfa-files/RFA-HS-04-012.html.

### **Arent Fox Attorneys at Law**

The law firm, based in Washington-DC, is widely published in both law journals and trade magazines. See Web site: <a href="http://www.arentfox.com/quickGuide/businessLines/e-health/e-health.html">http://www.arentfox.com/quickGuide/businessLines/e-health/e-health.html</a>

#### **American Health Information Management Association**

AHIMA represents more than 46,000 specially educated health information management professionals who work throughout the healthcare industry. <a href="http://www.ahima.org">http://www.ahima.org</a>

#### **American Medical Informatics Association**

AMIA is an organization of physicians, nurses, computer and information scientists, biomedical engineers, medical librarians, and academic researchers and educators. It offers a bimonthly journal that presents peer-reviewed articles that readers develop and apply medical informatics to patient care, teaching, research, and healthcare administration. http://www.ahima.org

#### **Association of Telehealth Services Providers**

ATSP is an international, membership-based organization dedicated to improving healthcare through growth of the Telehealth industry. ATSP publishes *Telemedicine Tele-Journal*, a bimonthly web presentation exploring issues and profiling programs related to Telehealth. http://www.astp.org

#### **American Telemedicine Association**

ATA advocates greater access to medical care for consumers and health professionals via telecommunications technology. Its monthly *Telemedicine Journal and eHealth* is a peer-reviewed journal covering all aspects of clinical telemedicine practice, technical advances, enabling technologies, education, health policy and regulation, and biomedical and health services research dealing with clinical effectiveness, efficacy and safety of telemedicine and its effects on quality, cost and accessibility of care. http://www.atmeda.org

#### Center for Excellence for Remote & Medically Under-Served Areas

CERMUSA was established as a testing, evaluation, and demonstration and assessment center for identifying "best practices" in providing healthcare services and education utilizing appropriate, available technology. The "best practices" anticipated to be identified are in areas related to

training and education, telemedicine, and technological support for healthcare providers and potential providers in remote, medically under-served areas. http://www.cermusa.org/mission/

#### Center for Telemedicine Law

CTL is a nonprofit entity that gathers and analyzes information related to the legal and regulatory aspects of telemedicine, with emphasis on legal and regulatory barriers and solutions. <a href="http://www.ctl.org">http://www.ctl.org</a>

#### **Healthcare Information and Management Systems Society**

HMISS is a healthcare industry membership organization exclusively focused on providing leadership for the optimal use of healthcare information technology and management systems. HIMSS represents more than 14,000 individual members and some 220-member corporations that employ more than one million people. <a href="http://www.himss.org">http://www.himss.org</a>

### **Journal of Imaging Technology Management**

Decisions in Imaging Economics offers a bi-monthly, web-based forum to address the development, diffusion, acquisition, and utilization of imaging technology. <a href="http://www.imagingeconomics.com">http://www.imagingeconomics.com</a>

#### Journal of Telemedicine and Telecare

The Royal Society of Medicine publishes peer-reviewed papers on all aspects of telemedicine and telecare, including Telehealth, online health and e-health. <a href="http://www.rsmpress.co.uk/jtt.htm">http://www.rsmpress.co.uk/jtt.htm</a>

### Office for Technology Administration, U.S. Department of Commerce

OTA seeks to maximize technology's contribution to economic growth, high-wage job creation, and the social well being of the United States. In February 2004, OTA released the first analysis of the healthcare industry in seven years called "Innovation, Demand, Investment in Telehealth". <a href="http://www.technology.gov/reports/TechPolicy/Telehealth/2004Report.pdf">http://www.technology.gov/reports/TechPolicy/Telehealth/2004Report.pdf</a>

#### **National Association for Home Care and Hospices**

NAHC is the nation's largest trade association, representing the interests and concerns of home care agencies, hospices, home care aide organizations, and medical equipment suppliers. http://www.nahc.org

# National Library of Medicine Office of High Performance Computing and Communications

NLM has sponsored programs in telemedicine, generally from the perspective of the application of communications technologies for delivery of healthcare at a distance. Proceedings summary from a March, 2001 Telemedicine Symposium is available at <a href="http://www.nlm.nih.gov/research/telesymp.html">http://www.nlm.nih.gov/research/telesymp.html</a>

# National Telecommunications and Information Administration, U.S. Department of Commerce

To promote the deployment of broadband, NTIA has established an interagency web site to provide information about the different federal agencies' rights-of-way processes and contacts.

The site is intended to improve access to information about obtaining rights-of-way for projects over federal land or property otherwise controlled by the federal government. http://www.ntia.doc.gov/frowsite/index.html

# Rural Broadband Loan & Guarantee Program, U.S. Department of Agriculture

In FY 2003, the Rural Utilities Service agency made available \$1.4 billion in loans and loan guarantees to provide broadband services in rural communities. These loans will facilitate deployment of new and innovative technologies to provide two-way data transmission of 200 kbps or more, in communities with populations up to 20,000. <a href="http://www.usda.gov/rus/telecomm/broadband.htm#info">http://www.usda.gov/rus/telecomm/broadband.htm#info</a>

#### Rural Health Care Division, Universal Service Administrative Company

RHCD provides reduced rates to rural Health Care Providers for telecommunications and Internet services necessary for the provision of health care. Up to \$400 million per year may be obligated. In FY 2002, 62% of RHCD payments were for services supporting IHS/Tribal health care. <a href="http://www.rhc.universalservice.org">http://www.rhc.universalservice.org</a>

#### **Telemedicine and Advanced Technology Research Center**

TATRC is a subordinate element of the United States Army Research and Materiel Command (USAMRMC). It is charged with managing core Research Development Test and Evaluation and Congressionally mandated projects in telemedicine and advanced medical technologies. To support its research and development efforts, TATRC maintains a productive mix of partnerships with federal, academic, and commercial organizations. <a href="http://www.tatrc.org">http://www.tatrc.org</a>

#### Telemedicine Research Center

TRC is a nonprofit, public service research organization that promotes telemedicine research, as well as creates, manages, and disseminates information about telemedicine issues. Active TRC projects include the Telemedicine Information Exchange <a href="http://tie.telemed.org/">http://tie.telemed.org/</a>, and collaborations with the Office for the Advancement of Telehealth, the Center for Health Policy Research, and the Association of Telehealth Service Providers. <a href="http://trc.telemed.org">http://trc.telemed.org</a>

#### University Programs

Many universities participate in telemedicine programs and networks. Examples include:

- Arizona Telemedicine Program http://www.telemedicine.arizona.edu/
- California Telehealth and Telemedicine Center <a href="http://www.pageweavers.com/cttc/index.html">http://www.pageweavers.com/cttc/index.html</a>
- Center for Native American Telehealth and TeleEducation http://www2.uchsc.edu/ai/cnatt
- East Carolina University Telemedicine Center
   <a href="http://www.ecu.edu/telemedicine/">http://www.ecu.edu/telemedicine/</a>

- Eastern Montana Telemedicine Network http://www.emtn.org/
- Fairview University of Minnesota Telemedicine Network http://fairview.org/telemedicine/
- National Laboratory for the Study of Rural Telemedicine http://telemed.medicine.uiowa.edu
- Pacific Telehealth and Technology Hui http://www.pacifichui.org
- Texas Tech University Health Sciences Center Center for Telemedicine http://www.ttuhsc.edu/telemedicine
- University of California at Davis Telehealth Program http://www.ucdmc.ucdavis.edu/cht/telemedicine/
- University of Kansas Center for Telemedicine and Telehealth http://www2.kumc.edu/telemedicine
- University of Oklahoma Center for Telemedicine http://www.ouhsc.edu
- University of New Mexico Center for Telehealth http://hsc.unm.edu/telemedicine/
- University of North Dakota Health Informational Technology Center http://www.med.und.edu/
- University of Tennessee Telehealth Network <a href="http://gsm.utmck.edu/telehealth/program.htm">http://gsm.utmck.edu/telehealth/program.htm</a>
- University of Vermont Telemedicine Program <a href="http://www.fletcherallen.org/Telemedicine/">http://www.fletcherallen.org/Telemedicine/</a>
- Utah Telehealth Network
   http://www.utahtelehealth.net/index.html

#### **Veterans Health Administration**

The VHA Telehealth program web site facilitates the exchange of information and ideas related to telehealth while offering access to Web-based and multimedia training materials to help promote excellence in clinical practice involving VHA telehealth. <a href="http://www.va.gov/Telehealth">http://www.va.gov/Telehealth</a>

## 12.0 APPENDIX F: Tribal Lands Home Telephone Rates

The following table shows FCC analysis of 1990 and 2000 U.S. Census data. The original FCC table has modified to link specific Tribal lands to healthcare facilities. (Source: Paulette Hansen; Original table: <a href="http://www.fcc.gov/Indian">http://www.fcc.gov/Indian</a>)

### **Aberdeen Area**

Tribal Name	Healthcare Facility	Sq. Miles	1990 Census	2000 Census
SD - Cheyenne River Sioux Tribe, Cheyenne River Reservation	Eagle Butte Indian Health Hospital, Health Stations: Cherry Creek, Swift Bird, Red Scaffold, White Horse	4406.748144	52.20%	92.10%
SD - Crow Creek Sioux Tribe, Crow Creek Reservation	Fort Thompson Indian Health Center	460.2032221	45.10%	75.50%
SD- Flandreau Santee Sioux Tribe of South Dakota	Flandreau Tribal Health Center	3.4924828	70.40%	88.80%
ND/SD-Sisseton-Wahpeton Sioux Tribe of the Lake Traverse Reservation	Sisseton Indian Hospital	1504.877229	49.50%	No data available
SD- Lower Brule Sioux Tribe of the Lower Brule Reservation	Lower Brule Health Center	383.3765171	51.90%	78.40%
SD- Oglala Sioux Tribe of the Pine Ridge Reservation	Pine Ridge Indian Hospital, Centers: Kyle & Wanblee, Health Stations: Allen & Manderson.	3464.453357	41.40%	No data available
SD- Omaha Tribe of Nebraska	Cart T. Curtis Health Center	314.2284198	36.70%	No data available
NE- Ponca Tribe of Nebraska	Ponca Tribal Clinic		No FCC Record	
SD- Rosebud Sioux Tribe of the Rosebud Indian Reservation	Rosebud Indian Hospital	1975.004596	43.80%	75.40%
IA- Sac and Fox Tribe of the Mississippi in Iowa	Mesquakie Health Clinic	5.92652398	62.70%	90.30%
NE- Santee Sioux Tribe, Santee Reservation of Nebraska	Santee Health Center	184.202803	34.10%	83.70%
ND- Spirit Lake Tribe, (formerly Devils Lake Sioux Tribe)	Spirit Lake Health Center	470.2024592	No data available	80%
SD- Standing Rock Sioux Tribe of North and South Dakota	Fort Yates Indian Hospital, McLaughlin Indian Health Center, Health Stations: Cannonball (ND) and Wakpala (SD)	3648.835816	43.20%	79.90%
ND- Three Affiliated Tribes of the Fort Berthold Reservation	Minne-Tohe Indian Health Center, Health Stations: Mandaree, Twin Buttes & White Shield	1578.069316	56.30%	93.3
ND- Turtle Mountain Band of Chippewa Indians	Quentin N. Burdick Comprehensive Care Center	145.8651259	68.20%	No data available
NE- Winnebago Tribe of Nebraska	Winnebago Indian Hospital	174.3998428	51.80%	No data available
SD- Yankton Sioux Tribe of South Dakota	Wagner Indian Health Center (Tribal)	682.6303342	46.90%	90.80%

### Alaska Area (not shown)

## Albuquerque Area

NM- Pueblo of Acoma NM- Alamo - Navajo Nation         ACL Indian Hospital         416.859972 70.00%         81.60%           NM- Alamo - Navajo Nation         Alamo - Ramah Health Field Station, Pine Hill Health Center         99.05654705         33.60%         No data available           NM- Canoncito-Navajo Nation         ACL Indian Hospital & Canoncito Health Center         121.592589         28.80%         No data available           NM- Pueblo of Cochiti Canoncito Health Center         Cochiti Health Clinic         82.05156264         84.00%         92%           NM- Pueblo of Domingo Damingo Danta Fe Indian Hospital NA- Pueblo of Jemez Jemez Health Clinic         139.6585316         37.30%         68%           NM- Pueblo of Jenez Jemez Health Clinic Data Delce Indian Health Center         1289.152915         49.40%         72.30%           NM- Pueblo of Isleta Data Delce Indian Hospital Data Delce Indian Hospital Data Delce Indian Hospital Pueblo of Pojoaque         Santa Fe Indian Hospital Pueblo of Pueblo of Pojoaque         No FCC Record for Nambe Pueblo of Pojoaque         Santa Fe Indian Hospital Pueblo of Pojoaque         27.35918636         28.30%         88.20%           NM- Pueblo of Pojoaque         Santa Fe Indian Hospital         27.35918636         28.30%         86.60%
Field Station, Pine Hill Health Center  NM- Canoncito-Navajo Nation ACL Indian Hospital & 121.592589 28.80% No data canoncito Health Center  NM- Pueblo of Cochiti Cochiti Health Clinic 82.05156264 84.00% 92%  NM- Pueblo of Domingo Santa Fe Indian Hospital No FCC Record  NM- Pueblo of Jemez Jemez Health Clinic 139.6585316 37.30% 68%  NM- Jicarilla Apache Tribe Dulce Indian Health Center 1289.152915 49.40% 72.30%  NM- Pueblo of Isleta Isleta Health Clinic 328.3603572 81.50% 92%  NM- Pueblo of Laguna ACL Indian Hospital 761.5724762 74.00% 88.60%  NM- Mescalero Apache Tribe Mescalero Indian Hospital No FCC Record for Nambe NM- Pueblo of Nambe Santa Fe Indian Hospital 27.35918636 28.30% 88.20%
Canoncito Health Center  NM- Pueblo of Cochiti  NM- Pueblo of Domingo  Santa Fe Indian Hospital  NM- Pueblo of Jemez  NM- Pueblo of Jemez  Jemez Health Clinic  NM- Pueblo of Isleta  NM- Pueblo of Isleta  NM- Pueblo of Laguna  NM- Pueblo of Laguna  NM- Mescalero Apache Tribe  Canoncito Health Clinic  82.05156264  84.00%  92%  NM FCC Record  139.6585316  37.30%  68%  1289.152915  1
NM- Pueblo of Domingo Santa Fe Indian Hospital No FCC Record NM- Pueblo of Jemez Jemez Health Clinic 139.6585316 37.30% 68% NM- Jicarilla Apache Tribe Dulce Indian Health Center 1289.152915 49.40% 72.30% NM- Pueblo of Isleta Isleta Health Clinic 328.3603572 81.50% 92% NM- Pueblo of Laguna ACL Indian Hospital 761.5724762 74.00% 88.60% NM- Mescalero Apache Tribe Mescalero Indian Hospital 719.5761103 41.60% 72.60% NM- Pueblo of Nambe Santa Fe Indian Hospital No FCC Record for Nambe NM- Pueblo of Picuris Santa Fe Indian Hospital 27.35918636 28.30% 88.20%
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NM- Jicarilla Apache Tribe Dulce Indian Health Center 1289.152915 49.40% 72.30%  NM- Pueblo of Isleta Isleta Health Clinic 328.3603572 81.50% 92%  NM- Pueblo of Laguna ACL Indian Hospital 761.5724762 74.00% 88.60%  NM- Mescalero Apache Tribe Mescalero Indian Hospital 719.5761103 41.60% 72.60%  NM- Pueblo of Nambe Santa Fe Indian Hospital No FCC Record for Nambe NM- Pueblo of Picuris Santa Fe Indian Hospital 27.35918636 28.30% 88.20%
NM- Pueblo of Isleta Isleta Health Clinic 328.3603572 81.50% 92% NM- Pueblo of Laguna ACL Indian Hospital 761.5724762 74.00% 88.60% NM- Mescalero Apache Tribe Mescalero Indian Hospital 719.5761103 41.60% 72.60% NM- Pueblo of Nambe Santa Fe Indian Hospital No FCC Record for Nambe NM- Pueblo of Picuris Santa Fe Indian Hospital 27.35918636 28.30% 88.20%
NM- Pueblo of Laguna ACL Indian Hospital 761.5724762 74.00% 88.60%  NM- Mescalero Apache Tribe Mescalero Indian Hospital 719.5761103 41.60% 72.60%  NM- Pueblo of Nambe Santa Fe Indian Hospital No FCC Record for Nambe NM- Pueblo of Picuris Santa Fe Indian Hospital 27.35918636 28.30% 88.20%
NM- Mescalero Apache Tribe Mescalero Indian Hospital 719.5761103 41.60% 72.60%  NM- Pueblo of Nambe Santa Fe Indian Hospital No FCC Record for Nambe NM- Pueblo of Picuris Santa Fe Indian Hospital 27.35918636 28.30% 88.20%
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NM- Pueblo of Picuris Santa Fe Indian Hospital 27.35918636 28.30% 88.20%
NM- Pueblo of Poioague Santa Fe Indian Hospital 21.05192645 66.70% 96.60%
NM- Ramah - Navajo Nation Alamo Ramah Health 27.65928874 3.90% No data available Health Center
NM- Pueblo of San Felipe San Felipe Health Clinic 79.09835402 59.20% 77%
NM- Pueblo of San Ildefonso Santa Fe Indian Hospital 43.98564264 65.40% 91.40%
NM- Pueblo of San Juan Santa Fe Indian Hospital 26.6951403 69.30% 86.60%
NM- Pueblo of <u>Sandia</u> Sandia Health Center 39.42986792 89.30% 95.10%
NM- Pueblo of Santa Ana Santa Ana Health Clinic 101.796529 78.50% 87.30%
NM- Pueblo of <u>Santa Clara</u> Santa Clara 77.11725846 74.80% 89.60% Health Center
CO- Southern Ute
NM- Pueblo of <u>Taos</u> Taos Picuris Health Center  156.1227212 53.30% 88.60%
CO- Ute Mountain Indian Tribe Towaoc Ute Center 900.3169931 20.20% 80.50%
NM- <u>Yselta del Sur</u> Pueblo, Yselta del Sur Service Unit No FCC Record Tigua Reservation
NM- Pueblo of <u>Zia</u> Zia Health Center 189.8984801 53.10 79.50
NM- Pueblo of Zuni    Zuni Indian Hospital    656.3812478    67.40    No Data

## Bemidji Area

<u>Tribal Name</u>	Healthcare Facility	Sq. Miles	1990 Census	2000 Census
WI- Bad River Band of Lake Superior Tribe of Chippewa Indians	Bad River Health Service	195.8419961	71.40%	94.50%
MI- Bay Mills Indian Community of the Sault Ste. Marie Band of Chippewa Indians	Bay Mills Ellen Marshall Memorial Center	3.5129126	78.10%	95.20%
MN- Bois Forte Band (Nett Lake) Chippewa	Bois Forte Medical Clinic	174.0888673	66.70%	No data available
MN- Bois Forte Band MN Chippewa Tribe	Bois Forte Medical Clinic	1.61872414	No data available	No data available
MN- Chippewa Tribe	Not Identified	80.18461398	87.90%	87.30%
MN- Fond du Lac Band MN Chippewa Tribe	Min-No-Awa-Win Clinic	168.9675037	80.50%	97%
WI- Forest County Potawatomi Community	Potawatomi Health & Wellness Center	18.77136202	No data available	89.90%
MI- Gun Lake- Match-E-B-Nash-She- Wish Pottawatomi	Gun Lake Health & Human Services		lo FCC Record	
MI- Grand Portage Band	Grand Portage Health	80.1846.`398	20.68%	87.80%
MI- Grand Traverse Band of Ottawa & Chippewa Indians	Grand Traverse Family Health Clinic, Health Station: Suttons Bay	0.46490219	59.60%	No data available
WI- Hannahville Indian Community, Potawatomi Indians	Hannahville Health Center	6.83181206	59.10%	75.50%
MI- Huron Potawatomi, Inc.	Huron Potawatomi Tribal Health	0.19240123	No data available	50%
W I- Ho-Chunk Nation	Ho-Chunk Health Care & Lake Delton Health Station	5.00889157	No data available	89.10%
MI- Keweenaw Bay Indian Community of L'anse and Ontonagon Bands of Chippewa Indians of the L'anse Reservation	Donald LaPointe Health Education Facility	109.4061636	91.40%	97.90%
WI- Lac Courte Oreilles Band of Lake Superior Chippewa Indians	Lac Courte Oreilles Health Clinic	123.0348393	62.00%	89.90%
WI- Lac du Flambeau Band of Lake Superior Chippewa Indians	Peter Christensen Health Center	134.5606983	70.50%	93.30%
MI- Lac Vieux Desert Band of Lake Superior Chippewa Indians	Watersmeet Health Center	0.0086428	34.90%	85.40%
MN- Leech Lake Band MN Chippewa Tribe	Leech Lake Tribal Health Six satellite sites	1303.902676	68.40%	92.90%
MI- Little River Band of Ottawa Indians	Little River Band Health Clinic	16.24855388	No data available	No data available
MI- Little Traverse Bay Bands of Odawa Indians	Little Traverse Bay Band Tribal Health Clinic	16.24515001	No data available	No data available
MN- Lower Sioux Indian Community, Mdewakanton Sioux	Lower Sioux Community Center	2.70543738	80.00%	96.10%
WI- Menominee Indian Tribe	Menominee Tribal Clinic	362.028042	72.10%	86.60%
MN- Mille Lacs Band MN Chippewa Tribe	Clinics: Ne La Shing, Aazhoomog, East Lake	7.76358483	42.10%	95.20%
WI- Oneida Tribe	Oneida Community Health Center	102.1874399	82.70%	99.60%
MI- Pokagon Band of Potawatomi Indians	Pokagon Potawatomi Health	16.25698806	No data available	96.40%
MN- Prairie Island Indian Community, Mdewakanton Sioux	Prairie Island Family Health Clinic	0.86457951	72.70%	100%
WI- Red Cliff Band of Lake Superior Chippewa Indians	Red Cliff Health Services	22.81265015	85.20%	93.40%

MN- Red Lake Band of Chippewa Indians	Red Lake IHS Hospital, Tribal - Red Lake Compre- hensive Health Service	1255.263936	59.00%	87.60%
MI- Saginaw Chippewa Indian Tribe of MI Isabella Reservation	Nimkee Clinic	217.9884942	74.90%	98.10%
WI- Sokagon Chippewa Indian Community (Mole Lake)	Sokaogon Chippewa Health Clinic	2.87676537	No data available	No data available
WI- St. Croix Chippewa Indians	St. Croix Health Services	2.95010343	72.30%	88.70%
MI- Sault Ste. Marie Tribe of Chippewa Indians	Sault Ste .Marie HHS, Health Stations: Lambert, Musing, Manistique	1.27462972	79.70%	92.60%
MN- Shakopee Mdewakanton	Shakopee Dakota Clinic	0.4661167	93.80	100.00%
WI- Sokaogon Chippewa Community of the Mole Lake Band of Chippewa Indians	Sokaogan Chippewa Health Center	2.87076537	No data available	No data available
WI- Stockbridge-Munsee Community of Mohican Indians	Stockbridge-Munsee Tribal Health Center	70.46500066	81.90%	94.40%
MN- Upper Sioux Indian Community	Upper Sioux Community	1.25329574	50.00%	75.90%
MN- White Earth Band MN Chippewa Tribe	Tribal Health Department & IHS White Earth Indian Health Center	1158.652483	64.70%	92.80%

## **Billings Area**

Tribal Name MT- Blackfeet Tribe of the Blackfeet Indian Reservation	Healthcare Facility Browning Indian Hospital, Heart Butte Health Station	<b>Sq. Miles</b> 2393.236346	1990 Census 68.30%	2000 Census 89.50%
MT- Crow Tribe of Montana	Crow Agency Hospital, Lodge Grass Health Center, Pyror Clinic	3578.770486	45.10%	87.40%
MT- Confederated Salish & Kootenai Tribes of the Flathead Reservation	Pablo & Polson Health Centers, Ronan Tribal Health Clinic, Health Stations: Arlee, Elmo	2051.600452	73.30%	95.90%
MT- Fort Belknap Indian Community of the Fort Belknap Reservation	Harlem Indian Center Hospital, Hays Health Station	1015.072383	56.90%	89.30%
MT- Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation	Verne E. Gibbs Health Center, Chief Red Stone Health Clinic	3291.839367	61.90%	92.30%
MT- Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation	Lame Deer Health Center	697.7999913	39.00%	75.40%
MT- Chippewa-Cree Indians of the Rocky Boy's Reservation	Chippewa Cree Health Center	167.9704112	67.50%	90.10%
WY- Arapaho and Shoshone Tribes of the Wind River Reservation	Arapaho Health Center, Ft. Washakie Indian Health Center	3523.565853	50.70%	91.70%

### California Area

Tribal Name NORTHERN	Healthcare Facility	Sq. Miles	<u>1990 Census</u>	2000 Census
CA- Cahil Dehle Band of Wintum Indian of the Colusa Inidan Community	Colusa Indian Health Clinic	0.3472532	20.00%	100.00%
CA- Cahto Indian Tribe of the Laytonville Rancheria	Consolidated Tribal Health	0.30353842	59.20%	85%
CA- Coyote Valley Band of Pomo Indians	Consolidated Tribal Health	0.09934988	100.00%	66.70%
CA- Guidiville Rancheria	Consolidated Tribal Health	0.60479099	No data available	No data available
CA- Hopland Band of Pomo Indians of the Hopland Rancheria	Consolidated Tribal Health	0.05882219	38.60%	100%
CA- Pinoleville Rancheria of Pomo Indians	Pinoleville Band / Consolidated Tribal Health	0.16063831	21.70%	100%
CA- Potter Valley Rancheria of Pomo Indians	Consolidated Tribal Health	0.60479331	No data available	No data available
CA- Redwood Valley Rancheria of Pomo Indians	Consolidated Tribal Health	0.12765145	No data available	97.90%
CA- Berry Creek Rancheria of Maidu Indians	Feather River Oroville	0.5704164	No data available	No data available
CA- Mooretown Rancheria of Maidu Indians of California	Greenville Rancheria Tribal Health Program	1.18729933	No data available	75.90%
CA- Greenville Rancheria of the Maidu Indians of California	Greenville Rancheria Tribal Health Program	0.12314967	No data available	100%
CA- Karuk Tribe of CA	Karuk Tribe of CA Happy Camp	.0650991	None	90.00%
CA- Hoopa Valley Tribe of the Hoopa Valley Reservation	K'ima:w Medical Center	137.2833023	64.20%	83.80%
CA- Yurok Tribe of the Yurok Reservation	K'ima:w Medical Center	87.9683906	33.50%	56.10%
CA- Big Valley Rancheria of the Pomo and Pit River Indians	Lake County Tribal Health Consortium	0.18655783	42.90%	81.80%
CA- Elem Indian Colony of Pomo Indians of the Sulphur Bank Rancheria	Lake County Tribal Health Consortium	0.06494692	38.10%	100%
CA- Middletown Rancheria of the Pomo Indians	Lake County Tribal Health Consortium	0.1926147	77.80%	83.30%
CA- Robinson Rancheria of Pomo Indians	Lake County Tribal Health Consortium	0.3606109	53.30%	92.70%
CA- Scotts Valley Band of Pomo Indians	Lake County Tribal Health Consortium	0.6048306	No data available	No data available
CA- Upper Lake	Lake County Tribal Health Consortium	0.71267899	,00%	100.00%
CA- Susanville Indian Rancheria of the Paiute, Maidu, Pit River, and Washoe Indians	Lassen Indian Health Center	0.22710051	79.30%	97.30%
CA- Alturas Indian Rancheria of Pit River Indians	Modoc Indian Health Project	0.03585929	0.00%	100%
CA-Cedarville Rancheria of Northern Paiute Indians	Modoc Indian Health Project	0.03474662	100.00%	100.00%
CA- Pit River Tribe of California	Modoc Indian Health Project	0.409116	No data available	0%

CA- Cortina Indian Rancheria of Wintum Indians	Northern Valley Indian Health	1.1874109	0.00%	0%
CA- Grindstone Indian Rancheria of Wintun-Wailaki Indians	Northern Valley Indian Health	0.13479124	81.80%	100%
CA- Mechoopda Indian Tribe of the Chico Rancheria	Northern Valley Indian Health	1.18720451	No data available	No data available
CA- Paskenta Band of Nomlaki Indians	Northern Valley Indian Health	1.1872657	No data available	No data available
CA- Pit River Tribe, Big Bend Rancheria	Pit River Health Services	0.06980561	0.00%	No data available
CA- Pit River Tribe of CA Montgomery Creek Rancheria	Pit River Health Services	0.14737057	0.00%	0%
CA- Pit River Tribe of the Roaring Creek Rancheria	Pit River Health Services	0.12837367	0.00%	0%
CA- Smith River Rancheria CA- Pit River Tribe of California XL Ranch Reservation	Pit River Health Services Pit River Health Services	0.21701014 14.39041904	82.40% 33.30%	82.40% 100%
CA- Quartz Valley Indian Community of the Quartz Valley Reservation	Quartz Valley Program	0.92503108	No data available	92.70%
CA- Redding Rancheria of California	Redding Rancheria Health Clinic	0.04944483	46.20%	61.50%
CA- Round Valley Indian Tribes of the Round Valley Reservation, California (formerly Covelo Indian Community	Round Valley Indian Health Clinic	94.84786115	65.10%	75.30%
CA- Sherwood Valley Rancheria of Pomo Indians	Sherwood Valley of Pomo Indians	0.45672624	0.00%	78.60%
CA- Bear River Band of the Rohnerville Rancheria	United Health Indian Services	0.04195192	No data available	100%
CA- Big Lagoon Rancheria of Smith River Indians	United Indian Health Services	0.01307674	100.00%	55.60%
CA- Blue Lake Rancheria	United Indian Health	0.04841378	82.40%	94.60%
CA- Elk Valley Rancheria	United Indian Health Services	0.13931896	30.80%	100%
CA- Table Bluff Rancheria of Wiyot Indians	United Indian Health Services	0.02449443	30.80%	No data available
CA- Yurok Tribe of California, Resighini Rancheria	United Indian Health Services	0.35895893	31.60%	100%
CA- Yurok Tribe of California, Trinidad Rancheria	United Indian Health Services	0.1043259	100.00%	100%
CA- Fort Bidwell Indian Community of Paiute Indians of the Fort Bidwell Reservation	Warner Mountain Indian Health Program	5.09171147	22.40%	68.90%
CA- Manchester Band of Pomo Indians of the Manchester-Point Arena Rancheria Mendocino County	Not identified Mendocino County	0.58731232	57.10%	96.40%
CA- Stewarts Point Rancheria of Pomo Indians	Not Identified	0.06759155	68.40%	62.50%
CENTRAL CA LIFORNIA CA- Big Sandy Rancheria of Mono Indians	Central Valley Indian Health	0.3907952	80.00%	85.40%
CA- North Fork Rancheria of Mono Indians	Central Valley Indian Health	0.1219754	No data available	100%
CA- Picayune Rancheria of Chukchansi Indians	Central Valley Indian Health	0.11580638	No data available	100%
CA- Santa Rosa Indian Community of the Santa Rosa Rancheria	Central Valley Indian Health	0.27151298	58.20%	88%

CA- Santa Rosa Band of Cahuilla Mission Indians of the Santa Rosa Reservation	Central Valley Indian Health	17.07559333	0.00%	23.50%
CA- Auburn Rancheria of Maidu Indians	Chapa De Indian Health Program	1.18740825	No data available	No data available
CA- Enterprise Rancheria of Maidu Indians	Not Identified	0.06510846	No data available	100%
CA-Rumsey Indian Rancheria of Wintun Indians	Chapa De Indian Health Program	0.09323927	No data available	80%
CA-Cold Springs Rancheria of Mono Indians	Cold Springs Rancheria Indian Health Program	0.15911338	51.20%	71.20%
CA- Lytton Rancheria of California	Lytton Rancheria	0.60495642	No data available	No data available
CA- Ione Band of Miwok	MACT Health Board	0.60494261	No data available	100%
CA- Jackson Rancheria of Me-Wuk Indians	MACT Health Board	0.48708345	62.50%	No data available
CA- Sheep Ranch Rancheria of Me-Wuk Indians	MACT Health Board	0.00027533	No data available	No data available
CA- Tuolumne Band of Me-Wuk Indians of the Tuolumne Rancheria	MACT Health Board	0.50595301	77.50%	71.40%
CA- Chicken Ranch Rancheria of Me-Wuk Indians	Modoc Indian Health Project	0.06611723	No data available	100%
CA- Shingle Springs Band of Miwok Indians, Shingle Springs Rancheria (Verona Tract)	Shingle Springs Tribal Health	0.27020572	100.00%	100%
CA- Table Mountain Rancheria	Table Mt. Medical	0.21994958	30.00%	100%
CA- Big Pine Band of Owens Valley Paiute Shoshone Indians of the Big Pine Reservation	Toiyabe Indian Health	0.42661603	88.80%	88.90%
CA- Death Valley Timbi-Sha Shoshone Band	Toiyabae Indian Health	6.15627895	No data available	No data available
CA- Fort Independence Indian Community of Paiute Indians of the Fort Independence Reservation	Toiyabae Indian Health	0.56147818	100.00%	100%
CA- Paiute-Shoshone Indians of the Bishop Community of the Bishop Colony	Toiyabe Indian Health	1.36990919	84.50%	84.50%
CA- Paiute-Shoshone Indians of the Lone Pine Community of the Lone Pine Reservation	Toiyabae Indian Health	0.35579634	82.30%	88.10%
CA- Utu Utu Gwaitu Paiute Tribe of the Benton Paiute Reservation	Toiyabe Indian Health	0.22563736	58.30%	53.30%
CA- Tule River Indian Tribe of the Tule River Reservation SOUTHERN CALIFORNIA	Tule River Indian Health Center	84.43285238	75.50%	70.80%
CA-Augustine Band of Cahuilla Mission Indians of the Augustine Reservation	Not Identified	1.01529994	No data available	No data available
CA- Cabazon Band of Cahuilla Mission Indians of the Cabazon Reservation	Cabazon Band of Mission Indians Clinic	3.37763828	54.50%	98.90%
CA- Cuyapaipe Community of Diegueno Mission Indians of the Cuypaipe Reservation	Indian Health Council	7.90180015	No data available	No data available
CA- Capitan Grande Band of Diegueno Mission Indians	Indian Health Council	20.52680969	No data available	No data available

### **Nashville Area**

Tribal Name	<b>Healthcare Facility</b>	Sq. Miles	1990 Census	2000 Census
TX- Alabama Coushatta	Alabama Coushatta	0.00378052	No data	No data
Tribe	Health Center		available	available
ME- Aroostock Band of Micmac Indians	Micmac Family Clinic	1.90527651	No data available	98.40%
SC- Catawba Indian Nation	Tribal health program	1.11144377	92.20%	97.70%
LA- Chitmatcha Tribe of LA	Tribal health program	0.44076406	80.60	95.70
LA- Coushatta Tribe of LA	Choctaw Health Department	0.37328202	80.00%	53.30%
NC- Eastern Band of Cherokee Indians	Cherokee Indian Hospital	81.13858293	63.20%	91%
ME- Houlton Band of Maliseet Indians	Malisset Health Center	23.65041213	No data available	100%
LA- Jena Band of Choctaw Indians	Tribal health program	0.00378521	No data available	96%
CT- Mashantucket Pequot Tribe	Tribal health program	1.91917882	87.50%	100%
FL- Miccosukee Tribe of Tribe of Indians	Miccosukee Tribal Clinic	128.1475956	50.00%	No data available
MA- Mohegan Tribe of Indians of Ct.	Tribal health program	.00377695	No data available	No data available
MS- Mississippi Band of Choctaws	Choctaw Health Center, Clinics: Conehatta, Redwater	33,1253395	33,69	82.80
RI- Narragansett Indian Tribe	Narragansett Indian Tribe Health Program	3.53089258	100.00%	100%
NY- Oneida Nation	Tribal health program	0.06850314	100.00%	100%
NY- Onondaga Nation	Tribal health program	9.28622146	No data available	100%
ME- Passamaquoddy Tribe, Indian Township	Tribal clinic	43.3269199	No data available	No data available
ME- Passamaquoddy Tribe, Pleasant Point	Tribal clinic	0.78122859	No data available	No data available
ME- Penobscot Tribe	Tribal health program	120.6741888	88.30%	98.70%
AL- Poarch Band of Creek Indians	Poarch Creek Health Department	0.35629944	70.80%	No data available
FL- Seminole Tribe, Holly- wood Reservation	Hollywood Clinic	0.75792055	55.80%	97.80%
FL- Seminole Tribe, Big Cypress Reservation	Big Cypress Health Center	82.24701168	26.70%	66.70%
FL- Seminole Tribe, Brighton Reservation	Brighton Clinic	57.09157219	56.70%	91.40%
NY- Seneca Nation, Allegany Reservation and NY- Seneca Nation, Oil Springs Reservation	Lionel R. John Health Center, Cattarugus Indian Reservation Health Center	49.40981893	82.40%	95.95%
NY- St. Regis Band of Mohawk Indians	St. Regis Mohawk Clinic	20.91170083	84.10%	100%
NY- Tonawanda Band of Seneca Indians	Lionel R. John Health Center, Cattarugus Indian Reservation Health Center	11.87691672	70.80%	86.70%
LA- Tunica-Biloxi Indian Tribe	Tribal health program	0.21133179	77.80%	No data available
NY- Tuscarora Nation	Not Identified	9.28531403	100.00%	76.90%
MA- Wampanoag Tribe of Gay Head (Aquinnah)	Tribal health program	0.00377699	No data available	100%

## Navajo Area

Tribal Name	Healthcare Facility	Sq. Miles	1990 Census	2000 Census
AZ- Kaibab Band of Paiute Indians of the Kaibab Indian	Tuba City Regional Healthcare	188.6891209	31.20%	82.90%
Reservation, Arizona	Неаппсаге			
AZ- Navajo Nation	Navajo Area IHS Area Office, PL 638 Tuba City Regional Healthcare and Winslow Indian Health Corporation	24433.8007	18.40%	39.90%
AZ-San Juan Southern Paiute Tribe of Arizona	Tuba City Regional Healthcare	4.12410796	No data available	No data available

### Oklahoma Area

Tribal Name	Healthcare Facility	Sq. Miles	1990 Census	2000 Census
OK- Absentee-Shawnee Tribe of Indians of Oklahoma	Absentee Shawnee Tribal Clinic	0.00378052	No data available	No data available
OK -Alabama-Quassarte	Okmulgee Health Center	0.00378042		No data
Tribal Town (Creek)	Chinaiges Floatin Como	0.00070012	available	available
OK -Apache Tribe of Oklahoma	Lawton Service Unit	0.00378006	No data available	No data available
OK -Caddo Indian Tribe	Lawton Service Unit	0.00378131	No data	No data
of Oklahoma		0.00070004	available	available
OK -Cherokee Nation of Oklahoma	Clinics: Nowata , Amo Salina Centers: Muskogee, Redbird Smith, Wilma P. Mankiller	0.00378234	No data available	No data available
OK - Cheyenne-Arapahoe Tribes of Oklahoma	Clinton Service Unit, El Reno	0.00378174	No data available	No data available
OK - Chickasaw Nation	Carl Albert Indian Hospital,	0.00378442	No data	No data
of Oklahoma	Ardmore, Tishomingo and Durant		available	available
OK - Choctaw Nation of Oklahoma	Choctaw Health Care Center, Clincs @ Broken Bow, Hugo Health, McAlester and Rubin White, National Diabetes Treatment	0.00378485	No data available	No data available
OK - Citizen Potawatomi Nation Oklahoma	Citizen Potawatomi Health Center	0.00378273	No data available	No data available
OK -Comanche Indian	Lawton Service Unit	0.00378525	No data	No data
Tribe of Oklahoma	<u> </u>	0.000.0020	available	available
OK - Delaware Tribe of Western Oklahoma	Lawton Service Unit	0.00378265	No data available	No data available
OK- Eastern Shawnee Tribe	Northeast Tribal Center	0.00377794	No data available	No data available
OK- Fort Sill Apache Tribe of Oklahoma	Lawton Service Unit	0.00378335	No data available	No data available
OK- IA Tribe of KS & NE	White Cloud Indian Health Station	19.50026583	No data available	100%
OK- Iowa Tribe of Oklahoma	Pawnee Service Unit	0.00378035	No data	No data
	14 H OF:	0.00077004	available	available
OK- Kaw Nation of Oklahoma	Kanza Health Clinic	0.00377821	No data available	No data available
KS - Kickapoo Tribe of Indians of the Kickapoo Reservation in Kansas	Kickapoo Nation Health Center	29.80333212	69.90%	95.10%
TX - Kickapoo Traditional Tribe of Texas	Kickapoo Health Center, Eagle Pass. Texas	16.30505623	No data available	35.20%
OK- Kickapoo Tribe of Oklahoma	Kickapoo Health Center, McLoud, OK	0.00378201	No data available	No data available
OK- Kiowa Indian Tribe of Oklahoma	Lawton Service Unit	0.00378659	No data available	No data available
OK- Miami Tribe	Northeastern Tribal Health Center	0.00378277	No data available	No data available
OK- Modoc Tribe	Northeastern Tribal Health	0.00378045	No data	No data
OK Musesses (Crest) Netice	Center	0.00070407	available	available
OK- Muscogee (Creek) Nation	Claremore Service Unit	0.00378467	No data available	No data available
OK- Osage Tribe	Pawhuska Tribal Health	2294.895922	81.80%	95.20%
OK- Otoe-Missouria Tribe of Indians Oklahoma	White Eagle Indian Health Center, F. Browning Pipetem Wellness Center	0.00377944	No data available	No data available

OK- Ottawa Tribe of OK	Northeastern Tribal Health Center	0.0037804	No data available	No data available
OK- Pawnee Indian Tribe of OK	Pawnee Indian Health Center	0.0037793	No data available	No data available
OK-Peoria Tribe of OK	Northeastern Tribal Health Center	0.00378419	No data available	No data available
OK- Ponca Tribe of Indians of OK	White Eagle Indian Health Center	0.00378099	No data available	No data available
KS- Prairie Band of Potawatomi Indians, KS	Prairie Band of Potawatomie & Sac Fox Health Center	120.0872139	64.70%	94.20%
OK-Quapaw Tribe of OK	Northeastern Tribal Health Center	0.00378053	No data available	No data available
KS/NE -Sac and Fox Nation of Missouri in KS & NE	Prairie Band of Potawatomie & Sac Fox Health Center	23.94607143	100.00%	100%
OK- Sac and Fox Nation of Oklahoma	Black Hawk Health Center	0.00378464	No data available	No data available
OK- Seminole Nation of Oklahoma	Wewoka Service Unit	0.00378041	65.20%	No data available
OK- Seneca-Cayuga Tribe of Oklahoma	Northeastern Tribal Health Center	0.00378276	No data available	No data available
OK- Cayuga Nation	Northeastern Tribal Health Center	10.90090028	No data available	97.70%
OK- Thlopthlocco Tribal Town (Creek)	Okemah Indian Health Center, Creek Nation Community Hospital	0.00378234	No data available	No data available
OK- Tonkawa Tribe of Indians of Oklahoma	Pawnee Indian Health Center	0.00378067	No data available	No data available
OK- United Keetoowah Band of Cherokee of Oklahoma	WW Hastings Indian Hospital	0.00378346	No data available	No data available
OK- Wichita and Affiliated Tribes of Oklahoma	Clinton IHS Svc. Unit El Reno (Concho)	0.00378393	No data available	No data available
OK - Wyandotte Tribe	Bearskin Health Center	0.00377922	No data available	No data available

### **Phoenix Area**

Tribal Name	Healthcare Facility	Sq. Miles	1990 Census	2000 Census
AZ- Ak Chin Indian Community	Gila River Health Care	32.90747223	23.70%	78.70%
of Papago Indians of the Maricopa, Ak Chin Reservation	Corporation, Ak Chin Clinic			
CA- Chemehuevi Indian Tribe of the Chemehuevi Reservation	Chemehuevi Tribal Clinic	49.4936663	57.10%	87.70%
AZ- Cocopah Tribe of Arizona	Fort Yuma Indian Hospital	10.0573	57.80%	88.50%
CA- Colorado River Indian Tribes of the Colorado River Indian Reservation, CA	Parker Indian Hospital	440.6513089	66.60%	No data available
NV- Duckwater Reservation Duckwater Shoshone	Duckwater Shoshone Tribal Health Clinic	6.18044021	72.10%	78%
NV- Duck Valley Reservation Shoshone-Paiute Tribes	Duckwater Shoshone Tribal Health Clinic	507.0619294	62.30%	No data available
NV- Ely Shoshone Tribe of Nevada	Southern Band Clinic	0.16378972	100.00%	No data available
AZ- Fort McDermitt	McDermitt Health Center	5,45366477	58.30%	No data available
AZ- Fort McDowell Mohave- Apache Indian Community	Wassaja Memorial Health Clinic	38.89500515	49.70%	85.90%
CA/NV/AZ - Fort Mojave Indian Tribe	Fort Mojava Tribal Clinic	52.36566431	45.80%	93.90%
AZ- Gila River Pima-Maricopa Indian Community of the Gila River Indian Reservation of Arizona	Gila River Health Care Corporation	584.3739222	22.20%	72%
NV/UT- Confederated Tribes of the <u>Goshute</u> Reservation	Goshute Indian Clinic	177.2362322	0.00%	9.40%
UT- Goshute Indians Skull Valley Band	Provider Care - Fort Duchense Health Center	28.1548095	0.00%	100%
AZ- Havasupai Tribe of the Havasupai Reservation	Supai Indian Health Station	273.8392749	15.50%	45.20%
AZ- Hopi Tribe of Arizona	Keam Canyon Svc. Unit Hopi Health Care Center	2436.121802	50.70%	68.30%
AZ- Hualapai Indian Tribe of the Hualapai Indian Reservation	Peach Springs Indian Health Center	1604.409545	24.50%	72.1
NV- Las Vegas Tribe of Paiute Indians of the Las Vegas Indian Colony	Las Vegas Paiute Health & Human Services	6.17294326	87.00%	87.90%
NV- Lovelock Piaute Tribe of the Lovelock Indian Colony	Monthly clinic local hospital	9.40134199	50.00%	71.40%
AZ- Quechan Tribe of the Fort Yuma Indian Reservation, CA/AZ	Fort Yuma PHS Indian Hospital	69.79710304	70.80%	75.50%
NV- Paiute-Shoshone Tribe of the Fallon Reservation and Colony	Fallon Paulute Shoshone Tribal Health Station	0.09811876	64.30%	82.50%
NV- Paiute-Shoshone Tribe of the Fallon Reservation and Colony	Fallon Pauiute Shoshone Tribal Health Station	12.75419491	84.30%	94.10%
UT- Paiute Indian Tribe	Not Identified	51.00217984	39.10%	85.30%
NV-Pyramid Lake Paiute Tribe of the Pyramid Lake Reservation	Pyramid Lake Health Department	724.2325742	62.80%	96.80%
NV- Reno-Sparks Indian Colony	Reno-Sparks Health & Human Services	3.17803053	90.40%	94.10%
AZ- Salt River Pima-Maricopa Indian Community of the Salt River	Salt River Clinic	84.22405721	44.90%	89.20%
AZ- San Carlos Apache Tribe of the San Carlos Reservation	San Carlos Indian Hospital , Bylas Health Center	2928.43103	16.10%	79.10%
NV- Summit Lake Paiute Tribe	Fort McDermitt	18.08601991	0.00%	0%

NV- Te-Moak Tribe of Western Shoshone Indians	Elko Service Unit	27.78537533	71.10%	No data available
AZ- Tonto Apache Tribe	Not Identified	0.1331373	No data available	82.20%
UT- Ute Indian Tribe of the Uintah and Ouray Reservation	Fort Duchense Indian Health Center	6816.282513	50.90%	94.30%
NV- Walker River Paiute Tribe of the Walker River Reservation	Walker River Paiute Tribal Health Center	535.6425088	65.40%	88.20%
CA/NV- Washoe Tribe	Washoe Tribal Health Center	0.07080266	42.60%	91.20%
CA/NV- Washoe Tribe	Washoe Tribal Health Center	0.67821269	No data available	No data available
CA/NV- Washoe Tribe	Washoe Tribal Health Center	4.50646246	66.70%	No data available
AZ-White Mountain Apache Tribe of the Fort Apache Reservation	Whiteriver Hospital & Cibcue Health Center	2631.779996	35.50%	57.20%
NV- Winnemucca Indian Colony	Fort McDermitt	0.55609128	87.50%	100.00%
AZ -Yavapai-Apache Nation of the Camp Verde Indian Reservation	Tribal health program	0.97869481	57.60%	No data available
NV- Yerington Paiute Tribe of the Yerington Colony and Campbell Ranch	Yerrington Paiute Tribal Health Clinic	2.55906331	52.90%	No data available
NV- Yomba Shoshone Tribe of the Yomba Reservation	Not. Identified, Central Nevada	7.2762258	83.30%	100.00%

### **Portland Area**

Tribal Name	Healthcare Facility	Sq. Miles	1990 Census	2000 Census
OR- Burns Paiute Tribe of the Burns Paiute Indian Colony	Burns Paiute Wadatika Health Center	18.8427213	45.70%	84%
ID- Coeur D'Alene Tribe of the Coeur D'Alene Reservation	Benewah Medical Center	610.0560886	57.30%	96.10%
WA- Confederated Tribes of the Chehalis Reservation	Chehalis Tribal Clinic	7.03202394	80.00%	92.10%
WA- Confederated Tribes of the Colville Reservation	Coliville Health Center / Omak Tribal: Inchelium & Sanpol Village	2178.427348	72.20%	92.50%
OR- Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians	Provider contract	0.01352427	No data available	100
OR- Confederated Tribes of the Grande Ronde Community of Oregon	Grand Ronde Health & Wellness	15.40369334	100.00%	No data available
WA - Hoh Indian Tribe OR- Confederated Tribes of the Siletz Reservation	Roger Saux Health Center Siletz Community Health Care Clinic	0.79315338 5.75323867	81.80% No data available	79.90% 100%
OR- Confederated Tribes of the Umatilla Reservation	Yellowhawk Tribal Health Center	270.4112883	70.70%	96.70%
OR- Confederated Tribes of the Warm Springs Reservation	Warm Springs Indian Health Center	1020.979921	68.40%	90.10%
WA- Confederated Tribes and Bands of the <u>Yakama</u> Indian Nation of the Yakama Reservation	Yakama Indian Health Center	2133.836888	75.90%	94.30%
OR- Coquille Tribe of Oregon	Coquille Tribal Health Center	0.00377678	No data available	79.5
OR- Cow Creek Band of Umpqua Indians of Oregon	Cow Creek Tribal Health Center	0.0540226	24.20%	No data available
OR- Cowlitz Tribe	Cowlitz Indian Health Service		No FCC Record	
WA- Jamestown S'Klallam Tribe	Jamestown S'Klallam Tribal Clinic	0.02903702	100.00%	100%
WA- Kalispel Indian Community of the Kalispel Reservation	Wellpinit IHS Service Unit / David. C Wynecoop Memorial Clinic	7.2921074	48.00%	100%
OR- Klamath Indian Tribe of Oregon	Klamath Tribal Health Center	0.69035349	No data available	100%
ID- Kootenai Tribe of Idaho WA - Hoh Tribe Business Council	Kootenai Tribal Health Clinic No clinic	0.02948198	59.10%	91.50%
WA- Lower Elwha Tribal Community of the Lower Elwha Reservation	Lower Elwah Tribal Health Clinic	0.755261	90.90%	93.70%
WA- Lummi Tribe of the Lummi Reservation	Lummi Indian Health Center	27.55975285	78.70%	96%
WA- Makah Indian Tribe of the Makah Indian Reservation	Neah Bay Health Center	42.581767	85.10%	No data available
WA- Makah Indian Tribe of the Ozette Reservation	Neah Bay Health Center	1.21815291	No data available	No data available
WA- Muckleshoot Indian Tribe of the Muckleshoot Reservation	Muckelshoot Tribal Clinic	6.11343979	75.60%	96.20%
ID- Nez Perce Tribe WA- Nisqually Indian Tribe of the Nisqually Reservation	Ni Mii Puu Health Center Nisqually Health Clinic	1201.276202 8.08327644	69.60% 65.30%	95.90% 93.70%
WA- Nooksack Indian Tribe	Noonsack Tribal Clinic	4.23689582	89.90%	No data available

UT- Northwestern Band of Shoshoni Nation of Utah (Washakie)	Fort Hall Service Unit / Not-Tsoo-Gah-Nee	0.30615201	No data available	No data available
WA- Port Gamble Indian Community of the Port Gamble Reservation	Port Gamble S'Kallam Tribal Clinic	1.88306035	52.40%	95.30%
WA- Puyallup Tribe of the Puyallup Reservation	Puyallup Tribal Health Authority	28.89903661	85.00%	98.60%
WA- Quileute Tribe of the Quileute Reservation	Qyuleute Clinix	1.5666203	61.90%	77.60%
WA- Quinault Tribe of the Quinault Reservation	Roger Saux Health Center	331.7817252	71.20%	89.60%
WA- Samish Indian Tribe	Provider contract	2.14041222	No data available	99%
WA- Sauk-Suiattle Indian Tribe	Sauk-Suiattle Tribal Clinic	0.07096884	46.20%	100%
WA- Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation	Shoalwater Bay Health Clinic	1.28342637	86.40%	100%
ID- Shoshone-Bannock Tribes of the Fort Hall Reservation	Fort Hall Service Unit / Not-Tsoo-Gah-Nee	854.1170959	69.90%	91.30%
WA- Skokomish Indian Tribe of the Skokomish Reservation	Skokomish Tribal Clinic	8.3510552	71.50%	93.60%
WA- SnoqualmieTribe	Tolt Community Clinic			
WA- Spokane Tribe of the Spokane Reservation	Wellpinit IHS Service Unit / David. C Wynecoop Memorial Clinic	248.8070464	64.20%	92%
WA- Squaxin Island Tribe of the Squaxin Island Reservation	Squaxin Island Tribal Council	2.51796293	88.10%	No data available
WA- Suquamish Indian Tribe of the Port Madison Reservation	Provider contract	11.6554959	82.90%	98.80%
WA- Swinomish Indians of the Swinomish Reservation	Swimomish Health Council	11.4017255	69.00%	96.40%
WA- Stillaguamish Tribe	Stillaguamish Tribe	6.30252225	87.70	100.00%
WA- Tulalip Tribes of the Tulalip Reservation	Tulalip Clinic	42.07311253	81.80%	91.90%
WA- Upper Skagit Indian Tribe	Upper Skagit Health Clinic	0.17202669	57.10%	84.50%

### **Tucson Area**

Tribal Name	Healthcare Facility	Sq. Miles	1990 Census	2000 Census
AZ- San Xavier Reservation	Tucson Area Office	111.48999962	51.30 %	No data Available
AZ- Pascua Yaqui Tribe	Tribal Health Program	1.43390779	73.20%	89.90%
AZ- Tohono o'Odham Nation	Tohono o'Odham Nation	4345.20591	No data available	75.90%
AZ- Tohono O'odham Nation	Tohono o'Odham Nation	0.73448328	No data available	No data available